

TENTH DAY.

(Continued.)

Senate Chamber,
Austin, Texas,
July 29, 1931.

The Senate met at 9 o'clock a. m., pursuant to recess, and was called to order by Lieutenant Governor Edgar E. Witt.

At Ease.

On motion of Senator Pollard, the Senate, at 9:03 o'clock a. m., stood at ease subject to the call of the Chair.

In Session.

The Senate was called to order at 10:35 o'clock by Lieutenant Governor Edgar E. Witt.

Bill Introduced.

By Senator Gainer:

S. B. No. 12, A bill to be entitled "An Act conserving and protecting for the use of the public buffaloes in Texas, making it unlawful for any person to kill, sell or transport the same except under certain conditions, and providing for a method of condemning the same by a State, Game, Fish and Oyster Commission, in order that buffaloes may be conserved and protected against destruction, providing the procedure therefor, and declaring an emergency."

Read and referred to Committee on State Affairs.

By Senator Small:

S. B. No. 13, A bill to be entitled "An Act to aid in the conservation and transportation of oil by encouraging the joint construction and operation of new and additional pipe lines in the State of Texas, thereby increasing competition in the transportation of oil to the markets of the world, by authorizing any corporation heretofore organized and incorporated under Article 1495 and Article 1496 of the Revised Civil Statutes of 1925, or any prior law, or any corporation that may be hereafter organized under said articles, and authorized to own and/or operate oil pipe line or lines in this State, to join with any other corporation authorized to own and/or op-

erate an oil pipe line or lines in constructing a new pipe line or lines upon such terms as may be agreed upon between the directors or managers of the respective corporations, and when an oil pipe line or lines have been so jointly constructed, the owners thereof are authorized to jointly own, use, operate and maintain the same upon such terms as may be agreed upon between the directors or managers of the respective corporations, but provided that such construction, ownership, use, operation and maintenance shall be subject to such supervision of the conservation authorities of the State of Texas as the law may now or hereafter provide; and declaring an emergency."

Read and referred to Committee on State Affairs.

By Senator Woodward:

S. B. No. 14, A bill to be entitled "An Act creating the Conservation Commission of Texas to be composed of three men; providing the qualifications of its members, their terms of office, their method of appointment, etc., and declaring an emergency."

Read and referred to Committee on State Affairs.

S. C. R. No. 4.

Senator Small sent up the following resolution:

Whereas, It is provided in Section 4 of H. B. 358, enacted by the Forty-second Legislature of the State of Texas, that all public school land sold shall be sold with reservation of 1/16th of all minerals, as a free royalty to the State and 1/8th of the sulphur and other mineral substances from which sulphur may be derived or produced; and

Whereas, It is provided in Section 5 of said Act that in all cases where a tract of school land has been occupied by mistake as a part of another tract, such occupant shall have a preference right for a period of six months after the discovery of the mistake, or after the passage of that Act, to purchase the land at the same price paid or contracted to be paid for the land actually conveyed to him, and confusion has arisen as to whether or not this preference right is limited by other provisions

of said Act, or pre-existing law; now, therefore, be it

Resolved by the Legislature of the State of Texas, that it was the intention of the Legislature, and is now the intention of the Legislature that public school land occupied by mistake as provided in said Section 5 be sold to the occupant at the same price which such occupant paid or contracted to pay for his adjoining tract and of which he in good faith thought such public school land a part, and it is further declared that it was not and is not intended that said privilege of purchasing such land shall be abridged, limited, subject to or burdened with any other provision of said Act or pre-existing law, except as to the reservations of said Section 4.

HORNSBY,
SMALL.

On motion of Senator Small, the resolution was referred to the Committee on Public Lands and Land Office.

At Ease.

At 10:42 o'clock a. m., the Senate stood at ease subject to the call of the Chair.

In Session.

The Senate was called to order at 6:07 o'clock p. m. by Lieutenant Governor Edgar E. Witt.

Hearings Extended.

Senator Woodward sent up the following written motion:

I move that Simple Resolution No. 8 be amended so as to extend the hearings by the State Affairs Committee until 6 o'clock p. m. Thursday, July 30, the hearings to be subject to the same rules and regulations as heretofore with the exception that witnesses shall be limited in their testimony to not more than one hour.

WOODWARD.

Senator Williamson raised the point of order that a quorum was lacking. The roll call showed 21 present.

Senator Oneal moved as a substitute motion that the State Affairs Committee be directed to meet to-

night and take testimony. The motion was lost by the following vote:

Yeas—5.

Berkeley.	Oneal.
Holbrook.	Williamson.
Hornsby.	Woodul.
Neal.	

Nays—15.

Beck.	Pollard.
Gainer.	Purl.
Greer.	Rawlings.
Loy.	Russek.
Moore.	Thomason.
Parr.	Woodruff.
Parrish.	Woodward.
Poage.	

Present—Not Voting.

Martin.

Absent.

Cousins.	Hopkins.
Cunningham.	Patton.
DeBerry.	Small.
Hardin.	Stevenson.

The motion by Senator Woodward prevailed.

Senator Williamson asked permission to be recorded as voting "No."

Simple Resolution No. 12.

Senator Poage sent up the following resolution:

Whereas, The control of highway construction in this State has gradually passed from the hands of local authorities into the hands of the State government, and the construction and maintenance of a system of State highways is now generally recognized as a proper function of and a duty properly resting upon the State government; and

Whereas, It is the sense of this Senate that a system of State built and maintained highways is essential to the prosperity and welfare of our people and that such system of highways should be built and maintained at the expense of the State rather than at the expense of local counties or road districts; and

Whereas, This State has heretofore and does now maintain State highways out of the proceeds of a

gasoline tax collected over the State at large so that the traffic which uses the highways will pay for the maintenance thereof in proportion to the use of such highways but such equitable apportionment of cost and construction is not at this time made in this State but is a condition much desired and essential to a fair and just distribution of highway construction cost; and

Whereas, It is both possible and desirable for the State to assume the entire cost of highway construction leaving to the counties and road districts the responsibility of the construction of the local lateral roads save and except for the fact that it would be unfair and unjust for the State to assume the entire cost of future highway construction without reimbursing counties and road districts that have heretofore contributed local funds to the construction of State highways; and

Whereas, There are now outstanding certain bonds issued by various counties and road districts of this State, the proceeds of which have heretofore been used for the construction of roads which now constitute parts of the State highway system of this State; and

Whereas, The burden of taxation necessary to carrying these bonds falls most heavily upon the farms and real property of the rural sections of this State and such burden is becoming unbearable and destructive of property values throughout the State; and

Whereas, The burden of carrying such bonds as well as of new highway construction should be shifted to the traffic which uses the highways for the construction of which such bonds were issued, and such shift would effect real and substantial relief to a large portion of our citizenship; and

Whereas, Such relief could be given by simple statutory enactment and such burden can be shifted so as to equalize same and to some extent restore the value of the lands of this State, all without any increase in the total indebtedness of the governmental agencies of this State as a whole; and

Whereas, The House of Representatives has heretofore signified its desire to provide such equalization of the tax burden in this State both

by its passage of the so-called "Stevenson Bill" and the "Brooks Bill" during the Regular Session of this Legislature and by its adoption of a resolution to this effect on Monday, July 27; now, therefore, be it

Resolved by the Senate of Texas That this body do hereby, and it does hereby, request the Governor of this State to submit to this Legislature now assembled in extraordinary session, a proclamation authorizing and empowering this Legislature to introduce, consider, and pass such measure or measures as it may see fit providing for a direct shift of the burden of highway construction, both past and future, from the counties and road districts of this State to the State government out of a gasoline tax or other sources of revenue without the issuance of any State bonds or any increase in total indebtedness of governmental agencies within this State.

POAGE.

On motion of Senator Poage, the resolution was ordered printed in the Journal and was set as special order for Friday morning immediately following the morning call.

Adjournment.

On motion of Senator Woodward, the Senate, at 6:25 o'clock p. m., adjourned until tomorrow morning at 9 o'clock.

TRANSCRIPT OF TESTIMONY

Wednesday, July 29, 1931, morning session.

The Chairman: The Committee on State Affairs will come to order.

Senator Pollard: I wish to call Mr. Ben Belt.

Ben Belt, a witness, was sworn, and testified as follows:

Questions by Senator Pollard.

Q. Your name is Ben Belt?

A. Yes, sir.

Q. What is your occupation?

A. I am chief geologist for the Gulf Production Company.

Q. What training, if any, did you have, prior to beginning actively the work of a geologist?

A. I graduated from the Univer-

sity of Oklahoma, and majored in geology.

Q. What year?

A. 1910.

Q. Since that time, outline your experience as a geologist, stating whom you have worked for, and where, and in what position?

A. I worked from 1910 until 1914 for the Mexican Eagle Oil Corporation, with headquarters at Tampico, Mexico, as geologist; and then worked from 1914 to 1916—or early in 1916—independently, and doing what field work I could get; and then worked for six months with the Kenola Oil Company, an independent company in Tulsa. I went to work for the Mexican Gulf Oil Company in October, 1916, and did a year's work in Mexico, and followed by about two months work in Cuba. At the end of that time I became a geologist for the Gulf Production Company, in the Wichita Falls and Ranger District. I continued in that capacity for about a year, and then was told to take care both of this territory and Mexico, and in about 1919 to 1921, I had charge of both Mexico and the northern district of Texas.

Q. For the Gulf?

A. For the Gulf, and at that time I was also doing work in Louisiana and Arkansas. In June, 1921, I left the employ of the Gulf Company, and became manager of the Pantepec Petroleum Company, in Tampico. I continued as manager of that company until 1924, at which time I resigned and did a year's work for the Vacuum Oil Company, and went out to Australia. In 1925 I went to work for the Gulf Production Company and went to West Texas. In 1925 to 1926 I was in charge of all work in West Texas, out of the Fort Worth office. In fact, I continued in the Fort Worth office in charge of West Texas, and the Panhandle, and Wichita Falls, and Ranger Districts, until January, 1929. In January, 1929, I was transferred to Houston, and made chief geologist of the Gulf Production Company.

Q. You are still with them?

A. Yes, sir.

Q. If I remember correctly, Mr. Foran testified that if we are going to deal with the subject of conservation, then we must deal with the

pool as a whole, as any group of wells has a reaction on other wells in that neighborhood; what do you think of that theory?

A. I don't think you can deal with the pool as a whole. I think that the unit, or what we deal with, has to be a well, because you drill wells to comply with lease contracts; you don't make lease contracts with oil pools; you make them with human beings; if you are going to live up to your lease contract, you have to handle it as a lease contract on the well as a unit. I am not a lawyer, but I don't see how you can handle the pool as a whole, and still have the best interests of royalty owners of the wells.

Q. Generally speaking, how would proration react as to fields, in individual cases, to the interest of all concerned, or would it discriminate against the individuals in any field?

A. Well, if you make the order, or the law, or the rule, so as to get the maximum results in the whole field, and don't take any thought of what individual cases are, it is going to discriminate, because in the early stage of any field, you don't know enough about it to make rules. To make a rule up in East Texas, say, now, based upon the idea of only one sand up there, and based on the idea that all those wells are interrelated, now, there is a difference of opinion—I have my own opinion about and I think there are a number of sands.

Senator Martin: A number of what?

A. A number of separate sands in East Texas. As a result all these wells are not interrelated, if that is true. We only have a handful of evidence on the subject. We have results from some eleven or twelve hundred wells—probably not all of them. Even, in twelve hundred wells, on a hundred thousand acres, where you know the formations, they don't appear to be the same. One place you will drill sand for forty feet, and another place you will drill ten feet of sand and go into shale.

Q. Will you explain to the Senate the difference between oil sand and oil shale?

A. Well, an oil shale is a separation—we hardly ever have such a thing as oil shale. Shale is a clay, but it is a hardened clay, and it

doesn't carry water, and it doesn't carry oil, and if you have two sands separated by ten or fifteen feet of shale, there could be no communication between a well drilled into one sand, and one drilled in another sand, so the wells would be no more related than if they were in different oil fields.

Q. Is that the condition in East Texas?

A. I think it is. We haven't all the information on it yet. Some people think it is not. They are as apt to be right as I am. But if we assume either way, and start to make an order, trying to get the best results out of the whole field, you are going to find out perhaps one of us is wrong. You have been wrong for two years under this order, and damage has been done to private property. It was not even the best thing for the pool. We just thought it was; whereas if we continued on the idea that the well is a unit, you know about the well, you know about what this well is going to do, what oil and gas it is making; the only thing you do know all about is the well, and it seems to me the well would have to be the unit.

Q. When arriving at the potential production of a field, do you arrive at it by considering each well as a unit, or can you arrive at it by taking the aggregate, without taking each specific well?

A. No; you have to consider each well; each well has to be gaged.

Q. How long would it take say twenty-five trained men in Texas to gage every well—oil well in Texas for its potential production?

A. It would not take so long. It would take a long time if you took twenty-four hour gages, but if you made two or three-hour gages, it would not take so long.

Q. Would it take three months?

A. No.

Q. How long?

A. Oh, it would probably take a month, or two months, maybe.

Q. After you had that job completed, would the condition in each well be the same as when you started or would conditions vary?

A. Conditions are going to vary; as you produce them, conditions are going to vary.

Q. Then, taking into consideration the actual potential production of wells that it took thirty days to test over the State, would any order based on that production, taking into consideration new wells which probably would be drilled, be fair to any respective land owner, as a rule?

A. You mean, if the purpose of the gage was for a state-wide order?

Q. Yes; and that order was entered a month after the gage was taken, would conditions have changed so much as to bring about inequalities?

A. Oh, it will bring about inequalities; conditions will change rapidly. It only takes two weeks to finish a well; besides if you are taking any considerable amount of oil from a field, wells may turn to water and change the whole picture; but it could be done.

Q. Are you acquainted with the conditions in the East Texas oil field?

A. Yes, sir.

Q. How long have you been working over there, studying that proposition?

A. Well, ever since its inception last September, when the Joiner well came in, it has been a problem to us, in one shape or another.

Q. You operate a good many wells over there?

A. Yes, sir.

Q. Mr. Belt, you were operating from the time the well came in, buying and selling leases in that area, weren't you?

A. Yes, sir.

Q. The Humble Company was also buying leases over there, weren't they?

A. Yes, sir.

Q. The general information we have is that the Gulf Company and the Humble Company had a buying agreement to the effect that if the Gulf Company obtained leases over there, that the Humble Company might at their option, at the same price, obtain a one-third interest in the leases; and if the Humble Company secured leases over there, then the Gulf might at their option, at the same price, obtain a one-third interest in the Humble's leases; is that correct?

A. You ask if there was an agreement?

Q. Yes.

A. No.

Q. Didn't they in fact make trades of that kind without an agreement?

A. We made several trades in which we transferred an interest to the Humble, and made several trades in which they transferred an interest to us.

Q. Without any agreement?

A. Without any agreement.

Q. Of course, there had to be some kind of understanding before that process was developed, didn't there?

A. Well, I don't know. You make one trade—you make such a trade as that, and later on, we would have something they would want a representation in, and they would ask us to sell them an interest in it; and probably the reason for our selling them an interest would be because they had something we wanted to get into.

Q. Didn't that have a tendency to make the cash bonus money for leases to be less than it would have been in competitive buying?

A. Well, it might have had some effect, but many trades I handled were broker's trades anyhow.

Q. What do you mean by broker trades?

A. Well, a broker, a trader has already gone and bought the blocks and I bought it from him.

Q. Then, that would not affect the price of the lease?

A. No. I don't see how it would.

Q. Do you have any such agreement in other fields with the Humble, or any other oil company?

A. No, but we very frequently acquire interest with other people.

We have joint interest with probably upwards of fifty different individuals and corporations.

Q. Mr. Belt, if you have no objections, we have a lot of charts and we would like to ask you some questions about them. Now, Mr. Belt, if I remember correctly, that "E" there is supposed to represent the conditions of two oil wells in the East Texas fields. No. 1 represents the water, the oil is being drained from that blue sector, and number 2 represents the,—wait a minute, I am getting that wrong.

Senator Woodward: You are mixing water and oil.

Q. The black represents the oil and the blue represents the water. No. 1 is supposed to have been drilled into the water and water has been forced into the oil and prevented the well from flowing. Does that reflect the true condition of the sand and water in the East Texas area, in your opinion?

A. That probably reflects faithfully one man's opinion of it.

Q. Is that your opinion of how the thing is handled there at this time?

A. No.

Q. Please state just your own theory on what is happening over there in regard to the production of oil, in regard to water, gas, and so forth?

A. My opinion would be based somewhat on speculation. This is supposed to be all oil. Like I was saying a while ago, I am not sure,—this thing is tilted, it is not all flat. I am not sure there is a break of shale,—here you have one strata of oil and a break of shale, and you might have three or four of them. It does not reflect at all what I think is true. I do not think it is all one and as shown there.

Does that five miles mean some of the wells are as far apart as five miles, one from the other?

Q. I don't think so. I think that is just to represent a typical case of what is happening over there.

Senator Woodward: I believe you have a misconception of Mr. Foran's explanation of the map. I do not understand he presented that map as typical of East Texas, typical of the area, but he was merely illustrating wells that could be in that condition. I don't know whether he said there were wells in East Texas in that condition, or not, but he did not present that as typical of East Texas at all. He was showing what happened under those conditions.

The Chairman: Might I suggest that the record of Mr. Foran's testimony is here and if you want to get it you can look at it.

Q. Would that represent a typical example of what could happen in the average oil field in Texas, not considering East Texas?

A. The only thing I can do is to

say,—generalizing is always inaccurate, and in many fields the sands are divided into several sands. I don't know exactly what this picture is supposed to portray.

Senator Pollard: Senator Woodward, do you understand this picture portrays the condition of oil in East Texas?

Senator Woodward: Not as covering the field, but as an illustration what could take place and what does take place when the conditions are as presented by that map. I do not understand he introduced that as typical of East Texas.

Q. Well, now, this is an East Texas condition. (Showing the witness another chart.) This is known as Exhibit "A," as introduced by Mr. Foran, showing wells number one, two, three and four. This is the west, showing how the water was rushing in and how water might ruin the field.

Senator Woodward: Will you permit a suggestion?

Senator Pollard: Yes, sir.

Senator Woodward: He was exhibiting this to show the effect and result of unequal taking.

Q. Now, Mr. Belt, does that reflect the true geological condition of the East and West strata of the oil sand in East Texas?

A. I will have to make some assumptions. I assume he means this is one body of sand. I assume this is the water. That is one body of sand. Did he name these wells, or is this just any well?

Q. Any well in the East Texas area.

A. That is wherein I do not agree. I think there might be in this sand a bed of shale cutting across there and there would be no relation between this well and that well.

Senator Woodward: Mr. Belt, he is assuming for the purpose of this illustrating that is one sand strata, so to speak, and that there are no breaks in it. In other words, he was illustrating that to show where it was one connected sand with no barrier between one and the other.

A. Well, that is true. I realize that he is assuming that, but in drilling wells and in handling property and issuing orders,—I suppose that is what we are talking about,—

making laws,—you can not assume it. You have got to know.

Q. Now, what is your opinion as to the condition of the oil sand in Texas,—does that reflect a true diagram of the oil sand as you have found it in your geological work in East Texas?

A. Well, I haven't found it, but I have seen shale between those sands in a sufficient number of cases to lead me to believe that wells are quite common in different sand members in East Texas and that there might be a shale break coming through there separating this well from that well, and there might be still another one here. We don't know, when we drill through the chalk and go into sand whether we have hit the sand or a sand, and I am inclined to think we have hit a sand.

Q. In East Texas?

A. Yes, sir, I do not think my opinion is any better than anyone else. It is simply that I am uncertain about it and I feel that we are all rather uncertain, as we usually are in the early stages of an oil field.

Q. Now, what will be the effect in East Texas if we have unequal withdrawals in wells situated near each other, say three hundred to five hundred or one thousand feet from each other? Suppose one well is producing more oil than another, will that cause water encroachments?

A. These gas conditions differ. It all depends on what part of the field it is in. Even on the assumption this is correct, which as I say it just isn't my idea of the condition, I do not believe that the excessive flow of a well located in this portion is going to cause the well to go to water because this is a long distance, as I understand his scale here, and that water has got to displace all of this oil before it can get to the bottom of this hole.

Q. There is no water in the eastern part of the field at this time?

A. I know there is no water there because in some cases they have drilled wells in through to the limestone below and haven't cored any water sand.

Q. Water encroachments on the west side of this field will be earlier than on the east side?

A. Yes, sir.

Q. Now, if a well should be

drilled and operated so that you would have water encroachment, would that well produce less oil or more oil, generally speaking?

A. It will produce less oil after the water comes into the well.

Q. Is there a way to prevent this water from encroaching after it once comes in?

A. No, sir, you can't. It is really a case of you can't have your cake and eat it. If you want the oil you have got to take it out, and if you take it out the water will follow it in.

Q. In some fields in Texas has more or less oil been recovered since you had water encroachments, for instance, the Powell field?

A. Well, the Powell field, between eighty and eighty-five per cent of the oil was recovered after the field was making more barrels of water than it was barrels of oil. In other words, when Powell had made fifteen per cent of the oil it has now made today, it began making over one hundred thousand barrels of water while it was producing ninety thousand barrels of oil. Powell is the kind of a field apparently that was a great oil field because it had water. Water has kept coming through there and washing the oil out of the sand. That has probably got to do with why it is a great oil field. The same is true of Luling.

Q. That cleans the oil sand completely out of oil, washes it into the well?

A. Yes.

Q. Have you a general knowledge of all wells in East Texas,—I mean, you keep up with that daily, do you?

A. Well, I know as much as I can know from reports, from reports and geological work, and everything, about the seventy-five wells that we have drilled, and I have gathered all the information about neighboring wells that I can. I know just about as much as anyone can know. I have as many facts.

Q. Is the condition of that field any worse in regard to the waste of gas, or the waste of oil, than any other newly discovered field of that size?

A. I do not think at present there is any waste of oil. When you first drill in a new field you have got a lot of gas and it can not be utilized. You can't get a gas company to come

in there and hook onto a peak load of gas, it can not be treated for casinghead gasoline until you have had time to install the equipment, until it has been proven profitable to install the equipment. It is a very unusual condition to be disposing of gas in any new oil field.

Q. Isn't that the usual condition in a newly discovered field?

A. I have never seen one where that was not true.

Q. Mr. Belt, you have seventy-five wells now in East Texas producing?

A. I don't know. That is a fair estimate of it. We have 113 wells drilled and drilling and I imagine around seventy-five of them have been completed.

Q. Now, is it the policy of the Gulf Production Company to conserve and preserve the property or let them run wild and lose gas unnecessarily?

A. Well, we do the best we can, we try to hold back the water and hold the pressure on the sand, try to use as little gas in producing the oil as we can.

Q. Now, if you and other officials of the Gulf Production Company believe it to be profitable at this time to install casinghead plants to recover the gasoline from the gas that is escaping, you would do it?

A. Yes, sir.

Q. Why don't you do it?

A. I don't think we can make any money out of it.

Q. Why?

A. Well, gasoline is so cheap and we have to build long gathering lines in order to make this gasoline, the yield of desirable gasoline from East Texas gas is rather low. In the early stages the yields are not as high as in the later stages.

Q. Has the Humble Oil Company a casinghead plant in East Texas area?

A. I don't think so.

Q. How many wells do they have producing?

A. They have more than we have, I suppose they have over a hundred.

Q. They are very strong on conservation, are they not?

A. Well, they are rather good operators.

Q. Now, if they had found it profitable to save that gas economically do you think they would refuse to do so?

A. I don't think any one would. I think if you could make any money out of it people that are financially able to build the plants would build them, I know we would.

Q. How much gas is escaping in the lifting of a barrel of oil in the East Texas field generally?

A. I don't know, I haven't gone into it with respect to the other fellow's well. I went over the amount of gas being produced to the barrel of oil in our wells about a week ago and while I did not bring it down to anything accurate, I know it is between two hundred and four hundred feet per barrel of oil.

Q. Cubic feet of gas?

A. Yes, sir, cubic feet.

Q. Do you know how much gas it takes to lift a barrel of oil in the Van field?

A. No, I don't have any knowledge of it because we do not operate there. I know in a general way it takes three to five hundred feet. I don't know exactly, that is what I read. I do not have any personal knowledge of it.

Q. Let me ask you this question: if it takes an average of three hundred cubic feet of gas to lift a barrel of oil in the East Texas field and four hundred and fifty to five hundred feet to lift a barrel of oil in the Van field and five thousand cubic feet to lift a barrel of oil in the Big Lake field, in which field would there be more waste if all of the gas escaped?

A. Well, I don't know whether I am entirely orthodox on this thing, or not, if you want to know where you were burning up the most gas per barrel of oil or where you were selling or disposing of the most, of course it would be Big Lake, but I don't personally think any of it is really waste.

Q. Why?

A. Well, it has brought the barrel of oil out of the ground and it has served its purpose.

Q. Would it cost more to pump that oil out of the ground than it does to let the gas lift the barrel of oil and escape in the East Texas field?

A. It would cost more to pump it.

Q. Then there would be a greater expense to pump the oil than to losing the gas?

A. Yes, sir.

Q. Is there, at this time in the East Texas field, a pipe line running from Longview to Tyler through the oil field pumping natural gas from other gas fields, the United Company's gas lines?

A. I think there is.

Q. Have they offered to buy any gas from you or any other company that you know of?

A. No, sir.

Q. Why is it they are not interested in obtaining this gas for commercial purposes?

A. Well, I don't know. I can tell you how I would feel, if I was managing that gas company. They built that line to serve a gas field that was already there at a very considerable expense. They have drilled a number of gas wells and laid gathering lines to them and if they started taking the supply from East Texas they would have to scrap that investment and not use their plant investment in that system, but turn around and put money into a new system, then when they got the new system built, this large amount of gas is sort of peak load right now.

Q. What do you mean by peak load?

A. It is a condition that is going to last during the young stages of the oil field only. When the field goes on a little further there probably will not be such a supply, and they would not be able to get a supply of gas out of there with the installations, and they would have to scrap it so it probably would not make them any money. I don't know that they could afford to make these installations, even if you gave them the gas, I am not sure they could.

Q. I will ask you if you know anything about the gas field which is over there just east of the East Texas oil field?

A. There are several large fields over there, and it has not been fully explored, drilling is still going on.

Q. Do you know about this Chapman well that came in that has been running wild about six weeks?

A. Yes, sir.

Q. Isn't it running more gas uncontrolled as to no value to the operator, than the entire oil field of East Texas is running daily?

A. To tell you the truth I don't know how much gas it is running.

Q. I don't know anything about it either except what I see in the newspapers, but the newspapers indicate there is over a hundred million feet escaping there daily and they are afraid it is going to blow out a crater, because it is so strong. Would that indicate it would be more profitable and more economical and serve the interest of the owner and consumer to use that gas than to use the gas from over the hundred and twenty thousand acres?

A. Yes, sir, because that well has probably got a good pressure and at least after a short length of time we will not have a good working pressure in East Texas.

Q. Now, as a matter of public policy would it be better, taking all of these companies into consideration, in the East Texas field, to close the field down entirely until an opportunity was offered to dispose of the gas, or would it be best and to the interest of the public to allow the gas to produce the oil?

A. Well, it is to the interest of the people that own the land to let the gas produce the oil. I don't know, it is not my personal idea, that the public's interest in the oil business is enough to go to work and shut down the property and say you cannot produce any oil at all. Again, that is just a layman's view. I don't know that you can do that; I don't know that you can tell them to shut it down until you sell the gas, it might be twenty-five years or fifty years.

Q. What other method could be invoked by the State to conserve this gas, other than reducing as much as possible of the gasoline content of the gas, which you say is unprofitable, than to have the gas disposed of to some commercial gas company?

A. The only other thing to do would be to pump it back into the sand.

Q. Well, how much would that cost per well to install the equipment?

A. I don't know, but I will say this, that you are going to have to put up a big pressure to put it back in there, and those installations will cost a lot. You will have to abandon an oil well to do it or drill a special well for that purpose and that well will cost just as much as an oil well. You would have to

have innumerable of them over the field and you would have to have a high working pressure pumping that gas back into the sand.

Q. In how many fields do they use that practice?

A. I think there are two or three.

Q. They are fields that are owned practically by one company, are they not?

A. Yes, all of them that I think of, all that I know of are practically singly owned fields.

Q. Except the Van field, which is a field operated under the unit plan?

A. Yes, sir, but I didn't know, they may be, I did not know they were pumping gas into the sand at Van.

Q. Now, the gas comes out of the separators at zero pressure?

A. Yes, sir.

Q. It must be compressed to four hundred pounds or better to push it back into the sand?

A. Yes, sir.

Q. And the cost of that compression is five or six cents a thousand while the value is only two or three cents per thousand?

A. You are right about the values, but those costs, I haven't gone into that.

Q. In your opinion how could they conserve the gas that is escaping in East Texas at this time and operate the wells as they are being operated or in any other economical manner?

A. I don't think they can do it, unless they burn the gas, I think it is necessary. If somebody wants to be academic and say it is waste to burn something that can be used, that is right, but I do not think it is an absolute waste in a new oil field.

Q. How long will the gas continue to function, according to the estimated supply in the East Texas field, in lifting the oil? Would it be a length of time sufficient to justify the expenditure of gathering lines for the gas that is escaping for commercial use?

A. No, sir.

Q. Or casinghead plants?

A. The casinghead plants will be built because as the field gets older it makes a less volume of gas but there is more gasoline in it per thousand cubic feet, and the result

is that the casinghead plant will come, but then you won't be using so much to get your number of gallons of gasoline. It becomes more practical as time goes on to build such plants.

Q. In your opinion, will more oil or less oil be recovered by the use of lifting the oil by gas or by the hydrostatic pressure, or water pressure in the East Texas area?

A. Well, the water won't lift oil. It will bring it to the hole, and it will have to be pumped out, the oil and water together. That was the condition at Powell. I don't believe that the gas is going to be a big factor in the actual recovery of oil in East Texas, because I think it is a field in which the sand is going to be washed by water, most of it, and when the water comes through it is going to wash the oil out and it will probably have to be pumped out.

Q. Is that the condition of the Mexia and Powell field?

A. Yes, sir, the fields went to water when it had made about fifteen per cent of its oil and then they installed pumps and they have been pumping ever since.

Q. Are they now pumping water into the Luling field to recover the oil?

A. No, pumping the water out, it went to water early in its life and it has been pumping water ever since.

Q. Well, could that have been prevented by any known method of recovering the oil?

A. No, sir, I don't think so, I think you have to take the water to get the oil. In Bradford, Pennsylvania, they had an oil field that would not do anything more and they are now going to a considerable expense to put water in there. I think that is necessary in order to get the oil out. Powell was a great oil field, because you did have water to wash the oil out of the sand.

Senator Purl: I would like to ask some questions, Mr. Chairman.

The Chairman: Senator Purl.

Questions by Senator Purl:

Q. In order not to burden the record and in order to make it a little easier on the reporter, if the Chair will permit I want to identify a statement made by Mr. Foran, by giving the page and line number in the Senate Journal, then I want to

read to you, not to be taken by the reporter, because it is already in the Journal, what he said about that particular map there, and I want to ask you to look at the map while I read it and then when I have finished reading it, I want to get your idea about the map, whether it is the idea of some geologist that drew it, or whether it shows the condition. I am now reading from the fifteenth line from the bottom on page 46 [Note: This reference is to the daily Journal. In the permanent Journal (this copy) see page 42] of the Senate Journal of Mr. Foran's testimony, he says the following: (Senator Purl reads the portion of the Journal mentioned). Do you agree with that statement so far?

A. Yes, sir.

Q. (Senator Purl reads further from Mr. Foran's testimony.) Do you agree with that?

A. Well, not exactly; he uses the word Woodbine sand, that is a formation name, and in actual practice it is not one sand body as shown here. It is called the Woodbine sand but there might be a number of sands in it separated by shale.

Q. (Senator Purl reads more of Mr. Foran's testimony.) Do you agree with that?

A. Yes sir. That is right.

Q. (Senator Purl reads further from Mr. Foran's testimony.) Do you agree with that?

A. Yes, sir, in a general way that is true, but I do not agree that this is all one sand; there are probably impervious layers within it that are dividing this body of sand.

Q. Now, listen. (Senator Purl reads further from Mr. Foran's testimony.) Do you agree with that?

A. Yes, sir; that is true.

Q. Now then Senator Poage asked Mr. Foran this question. (Reading from the Journal.) Do you agree with that?

A. Yes, sir.

Q. Then so far as this map A is concerned, before turning to the next map, do you agree, although he does not state that that represents the East Texas condition, do you think that is correct?

A. That changes the whole picture, if that is not one sand body, and I suspect it is not all one sand body, the rest of what he says I agree with. I don't know that it is not all one sand body, but I am inclined to the view that it is not.

Q. Isn't it recognized by geologists that East Texas is something different, and it was a mystery to all of the oil men, or they would not have overlooked it?

A. We did not know it was there until they drilled the wells.

Q. How can you draw a map, —

A. This is not a map, this is a picture of a man's thoughts. If this was a map or chart there would be a statement here that it was somebody's well on somebody's farm and he would show the depths where he struck the various sands. This is not a map, it is just what he thinks.

Q. He says this is so and so, and this is something else, it is just a supposition?

A. Well, it is in general true but it is a diagram, it does not represent facts.

Questions by Senator Neal.

Q. May I ask a question while you are waiting? Are you familiar with the East Texas field?

A. Yes, ma'am.

Q. Do you consider that there is a great water hazard in the west part of the East Texas area?

A. Well, it all depends upon your point of view about the hazard. As I said a while ago, if you are going to produce oil, water is going to come in. That is probably the result when you are producing oil.

Q. Is water much more manifest on the west side?

A. The wells on the western side will make water first.

Questions by Senator Rawlings.

Q. As I remember Mr. Foran's testimony, Exhibit A represents a cross-section of the East Texas field. We will say well No. 1 is approximately where the Joiner well is—that is, well No. 1. Is the oil deposit on the west?

A. Yes, sir.

Q. There is another map there that—

Senator Purl: Senator Rawlings, this is map E; if you will let us turn to it—

Senator Rawlings: Just let me turn over to it.

Senator Purl: I would like to get up to E. That is along your line.

Q. That is Mr. Foran's idea of the East Texas field. The heavy dotted lines represent the outer edges of the pool, I understand from Mr. Foran's testimony. The

red area indicated on Exhibit B shows that portion of the field that has water underlying, coming in from the west. The eastern edge of the pool at this time has no water underlying the pool according to his theory, but as the oil is withdrawn from the eastern edge the water crowds farther east. Now then, if you will turn back to Exhibit A, I would like to ask you two or three questions about that with reference to underground waste. I suppose you subscribe to the theory that there is an underground waste, don't you?

A. That there is an underground waste?

Q. Yes, sir.

A. Where?

Q. Sir?

A. Where — in —

Q. Well, to illustrate what I mean, for instance, well No. 3 on Exhibit A—

A. Yes, sir.

Q. It is the theory of some geologists, as well as practical oil men, that you can throw well No. 3 wide open and it will cone water. That is a proper geological term, isn't it?

A. Yes, sir.

Q. Coning.

A. Yes, sir.

Q. In other words, well No. 3 will soon take the oil off the top of the water and suck the water up into the bottom of the well.

A. Yes, sir.

Q. It will trap the oil west of No. 3? In other words, there will be a deposit of oil or pool of oil cut off west of Number 3 by reason of the rapid flow permitted in Number 3, which will never be regained. Do you subscribe to that theory?

A. No, sir.

Q. You don't?

A. No, sir. I think probably under very excessive flow coning does take place. There is a good deal of debates about that, but I am inclined to the theory that coning does take place and this water has a pressure on it over here. We know this without any speculation; this water will rise here to the top of the casing. There is pressure on it. You have all of this water back here, and you achieve this coning and the water is going to continue to exert pressure on it as you take the oil

and water out, and the oil is going to the top of your well.

Q. Do you think if well No. 3 if permitted to run at too great a rate could not cone water in any such manner that it would not trap oil in No. 3?

A. It would not trap it. As you take the fluid out of there it will be both oil and water, and as you take the oil out the water will move in any way and you will eventually wash all of that oil out of there.

Q. There must be a limit of the proportion of water and oil taken out of a well that makes it not profitable to operate. Now, what is the maximum proportion of oil and water that renders it unprofitable to operate?

A. Well, that is altogether a matter of price. During the conditions of the last eight years in the Smackover field we have gone as high as twelve to fifteen barrels to get one barrel of oil. Those things vary with the price.

Q. You could not operate a well at the present price profitably with the proportion of twelve barrels of water to one barrel of oil, could you?

A. No, sir.

Q. Will the water pressure force this oil out in this outer portion of the East Texas field—Exhibit A—is the water pressure sufficient to force oil to the top of the well?

A. We don't know that. We saw the only well that was bailed and when they drilled it in they cored the sand and it had a little oil, and that was the Dearmond well up at the north end of the field; they bailed the mud out of it to see if it would flow oil, and my information is that the water rose within five hundred feet of the top of the casing. So the chances are for some of these wells making oil and water. I am inclined to think that the water independent of the gas pressure probably does rise up in the casing within four or five hundred feet of the top.

Q. That would be sea level in the East Texas field?

A. Oh, no.

Q. I mean that would be the level of the outcropping in East Texas; that is, if it is three thousand feet at the top and it rises three thou-

sand feet it would be about on the level of the out cropping.

A. Oh, I suppose so, but there is a whole lot of factors to go into that. The best way to do is to see what the wells do. But if it comes up within four or five hundred feet of the top of the casing, it may come clear to the top of the casing in certain instances, like in some of those oil and water wells which are flowing.

Q. Well, assuming that Exhibit A does represent true conditions in East Texas, could well No. 3 or No. 2 be so operated as to destroy that oil deposit so that well No. 4 could not take it out of the ground?

A. No, sir.

Q. You don't think so?

A. No, sir.

Q. In other words, you could let well No. 3 and well No. 2 run at full capacity and it wouldn't endanger well No. 4?

A. It will increase your production costs. It won't hurt the volume of oil that will ultimately be taken out of the field, but it will increase your production costs, because you are going to have to pump oil and water and it is going to be expensive. If you will let it run to capacity, there would be a tendency to let excessive gas energy escape.

Q. Well, like I told you, I am not dogmatic about this thing at all. That is just your opinion. It is only an opinion.

A. That is about the best I can do. It is only an opinion that the gas energy is not the thing that is going to bring the oil into the well. It is the water drive that is going to bring the oil in there.

Q. Well, your guess is better than mine—you have never been to the bottom of one of those wells and don't know what is down there.

A. No, indeed not.

Q. The water has tendency to force the oil in and the gas helps to lift it.

A. Yes, sir; it helps to lift it.

Q. In fact, it does lift it; that is the only energy that you have down there to lift it?

A. It does for a time, but when it will no longer lift it the water will bring it into the well and you will have to pump it.

Q. That is the only natural en-

ergy you have that will lift oil to the surface—that is gas?

A. Not necessarily, if you are speaking in general terms.

Q. Yes, sir. You will have fields where your water pressure is enough to bring the oil to the surface. Is that true in the East Texas field?

A. I don't think so.

Q. Yes, sir. The water pressure will not bring the oil to the surface?

A. I don't think so, not based on what we know about the water wells.

Q. To be specific about it, the only natural energy that you have in East Texas is gas?

A. That will make it flow; yes, sir.

Q. That will make it flow?

A. Yes, sir.

Q. Now, then, if you permit those wells to run wide open without pinching them down, there would be an unnecessary waste of gas energy, wouldn't there?

A. It is wasting gas energy, but you are not wasting any oil.

Q. Well, there would be an unnecessary use of gas, or consumption of gas in bringing the oil to the surface?

A. Yes, sir; but you can not produce oil without producing gas.

Q. I understand that. I didn't catch your name a while ago.

A. Belt, B-e-l-t.

Q. Mr. Belt, what I am trying to find out,—I am not trying to be technical with you, or to cross examine you. But, I am trying to get some information.

A. Yes, sir.

Q. Is it practical to regulate a well in East Texas, to be specific about the field,—to use approximately the amount of gas necessary to bring the oil to the top so that you might conserve the gas energy?

A. I hope you won't think I am contentious, but there are wells,—we have had occasion to open wells up under permission of the Railroad Commission to what would be termed in the number of barrels, of excessive rate of flow, and we varied the oil gas ratio very little.

Q. The ratio was — —

A. Very little. In fact, the best oil-gas ratio is something around two thousand and probably the average of the field would achieve your best oil-gas ratio.

Q. Is two thousand barrels of oil — —

A. That is, after you pinched them in so they have the proper oil-gas ratio.

Q. Mr. Belt, is there any way of regulating artificially the ratio of the oil-gas flow?

A. You can regulate it if it is naturally very high, but once you get down so low, you can't do much better; I mean if you get down to around an average of around three hundred and fifty feet for a barrel of oil, it can't be much better. You can achieve your best with probably with a well flowing three or four thousand barrels a day.

Q. What I want to know is—as a practical matter, we will say a well in East Texas, naturally low, will produce one thousand cubic feet of gas to the barrel of oil.

A. Yes, sir.

Q. That would be the excess gas over the amount actually necessary to bring the oil up, wouldn't it?

A. Well, if you say that is the natural condition, I don't know that it would be. You tube your well, so as to make the lifting most efficient. Then, once you have tubed it, you can experiment with the flow, and after you have tubed it, you can't do much better with the oil-gas ratio.

Q. What I want to get is, assuming that a well is brought in over there with a natural flow, and it is using one thousand feet for each barrel of oil—just use those figures arbitrarily—is there any way you can go in there and control this well so that you can cut this gas down to three hundred feet to the barrel?

A. Yes, sir; you can change the size of the tubing, and can change the size of your choke, and do some good with it.

Q. And that would change the ratio then?

A. It will change the ratio in certain wells, but there are certain wells that after you have done everything that you can do, you can not bring them down to where it would—

Q. Do you mean on account of the excess pressure of the gas there?

A. I don't know why it is, but you can do only so much. You can probably vary all of them, but you can take two wells very near to each

other, and you wouldn't get the same results. Some of them will be different.

Q. Is that variable condition in only one pool, or at different places or pools?

A. No; all oil fields are like that.

Q. What I mean to say, Mr. Belt, take in the East Texas pool there, that variable condition is present, and some of the wells you can lower, and some you cannot.

A. Yes, sir.

Q. Do you agree with Mr. Foran that Exhibit A fairly represents a cross section of the East Texas fields?

A. No, sir; it doesn't. Because this is supposed to be sand. (indicating,) and I contend, and I have a good deal of evidence on it, and it is still only an idea I have, but it is my idea—just an idea—

Q. Yes, sir.

A. I contend that they are separated by breaks of shale.

Q. Mr. Belt, you contend that, and I very readily see where there might be a fault in there —

A. It isn't a fault.

Q. Your idea is that it may vary from that picture, but do you have any separate evidence that the condition actually in East Texas was different than represented by Exhibit A?

A. Yes, sir.

Q. What are they?

A. I know there are wells up there, for example, the Snavely well —

Q. What?

A. The Snavely well, in the Longview area, they drilled to the Austin chalk, and they had fourteen feet of that, and then they drilled and went back into sand. That seven feet was oil sand, and then there was forty feet of shale, and went back into another sand, and this happened in a number of wells. These sands are connected at the lower end of the water, but they part and are forever distinguished.

Q. I can see without being a geologist that you could not place oil sand—the thing you refer to might be a mere exception, but generally speaking, do you not agree that Exhibit A represents conditions in East Texas?

A. With the one limitation on

that that there are a number of sands.

Q. Yes, sir. Mr. Belt, is it practical, or do you think it is practical for this Legislature, or whatever Commission might be delegated with the power to regulate oil companies—oil fields, and oil wells, to lay down some formula by which a well might be operated? I have in mind this: There is a condition of underground waste, whether you subscribe to it or not. There is testimony here on both sides of the question. There is that theory of underground waste. Assuming that a well is operated improperly and allowed to run too fast, it might trap off certain oil deposits and they would later be recovered. Is there any percentage basis, or rule by which a well could be operated,—either the individual well, or the wells in the entire field—well permitted to run a certain percentage of its potential so that the ultimate recovery of oil would be had?

A. The rule would have to be different in each field, and probably with each well. The wells in the field would have to be treated as a problem, and you could work out their capacity and regulate the individual wells.

Q. Could the Commission or the statute provide that wells Nos. 2, and 3 say, run fifty percent of its potential, and No. 3 run seventy-five, and so on, or could you lay down a blanket rule that wells Nos. 2, 3, and 4 could run fifty percent of their potential, or some other percentage, without doing injury to the pool?

A. Now, is this to be a field ruling, or a law? Because if it is a law, it probably wouldn't have —

Q. That's what we want to find out,—whether it is practical to write that sort of a feature into the statute, or leave it to some Commission to deal with each well?

A. I thought it should be left to the Commission to deal with.

Q. In other words, two wells, say five hundred feet apart, with the producer permitted to run seventy-five per cent of its potential, and the other one only fifty percent, is that true?

A. Well, I don't think—of course, we have to speak in terms of barrels.

Q. Yes, sir.

A. But where it is not the number of barrels it is concerned with,

—when we are concerned with what effect it is having on the water, and on the gas, it is a matter of method and the number of barrels to be produced from one pool — —

Q. Mr. Belt, I want to get this, just as a practical matter. We don't know anything about the oil business, but we are called upon to come down here and lay down some statute on the oil fields, and I want the information on it. I want to know whether there is some way of regulating the drilling of wells that would secure the ultimate amount of oil out of that well, or out of that pool, without doing the damage to the other wells similarly situated. How can that be done? By some regulations? If it is not proper to let every man that drills a well, throw it wide open, and run it to its full capacity, then what kind of a limitation are you going to put on it? If a well comes in as a ten thousand barrel well, should it be cut down to six thousand, five thousand, or five hundred barrels to promote an efficient recovery of oil out of that pool, without doing damage to the other wells? You are a geologist, and you ought to know. Suppose you owned the whole East Texas fields, and you wanted to go over there and regulate your wells so that you could get all of the oil possible out of that field. What kind of a formula or rule or method would you use, as to each well, or the pool, or districts?

A. Well, if I owned the whole thing, but it was cut up into separate farms, I don't think I would have the right to draw all of the oil out of the whole field at the expense of some particular eighty acre farm. I think I would have to treat each property as a problem to itself.

Q. Let's disregard the human rights at this time. I am talking about some method that will bring about the ultimate recovery of the oil in the pool, without doing unnecessary damage to the neighbor's well. There ought to be—if this legislature can deal with that subject and regulate it and provide how much this well can run,—how much, and how often, and when,—and a man of your experience ought to be able to give us some information on that. If I sat down here and tried to make a rule, I wouldn't know how to write

it for the Railroad Commission or the supervisor.

A. I don't think you can do anything except what the Railroad Commission is doing now,—make a study of it and try to fit your rule so that it fits each individual well, and if it doesn't, just change it. I think there is a good deal of trial and error in it.

Q. Can you pick out one well, and tell us how it could be drilled and operated to make it operate without doing damage to some other well?

A. Well, only—the only thing I would do is just flow it at its best oil gas ratio.

Q. Well, how would you determine its best oil-gas ratio?

A. By the method of trial and error. Tube it, and then start to experiment with it—with the choke until I found out what the best oil-gas ratio was.

Q. In other words, you would take each well as a problem?

A. Yes, sir.

Q. As a separate problem?

A. Yes, sir.

Q. And you would test it and find out at what ratio it produced the most oil?

A. Yes, sir.

Q. Would that have a tendency to create a hazard for some other well nearby?

A. If I did that. I don't know what you mean by "hazard." If I did that, the chances are that many of those wells would be flowing four or five thousand barrels a day, and would pull water in, but the water is eventually going to come in, and you can't keep that water out. It is going to come in.

Q. Under the present method of operation in East Texas, do you think an allowable of two hundred and fifty thousand barrels a day—I don't know whether that figure is correct or not, but as I understand it, under the present order, they have to pinch down their wells so that the ultimate recovery will not exceed the allowable; is that correct? That, at least, is the theory.

A. That is what the order says.

Q. In view of the number of wells over there, no one can produce over 250 barrels a day, in order to keep it within the allowable. Now, do you think, as a geologist that some of those wells now producing

250 barrels a day under this order, could, say, produce 5,000 barrels a day without doing any damage to the field?

A. Yes, sir.

Q. Is that your idea as to how it should be regulated, to let each well produce its maximum flow, so long as it will do it without damage to the field?

A. Minimize the waste, as I testified before. I don't know what they are going to do with that gas, but I think that is form of waste that is unavoidable.

Q. Now, the gas that is used to bring the oil to the surface, that could be repressured and put back into the ground?

A. Yes, sir.

Q. Would you give us an idea about what that process is, taking that area of East Texas, several thousand acres in it, would there have to be a repressuring plant for every so many wells, or what operation would it take to put the gas back in the ground in East Texas?

A. I haven't given the matter much thought, but anyone can see you would have to have wells, these repressuring wells—you would learn a good deal about it as you went on,—and if you put this gas back in, you would have to have a good many of wells—perhaps a mile apart or closer,—and that would take a good many of them.

The Chairman: We will take a recess for a few minutes.

(Thereupon a five minute recess was taken by the Committee on State Affairs.)

The Chairman: Proceed, Mr. Belt.

Q. You are familiar with the conditions in the East Texas field at this time, are you not?

A. Yes, sir.

Q. Do you say there is any waste being permitted in East Texas that should be corrected by laws?

A. The amount of waste is probably where some well is producing more gas than it is necessary for it to produce. I don't know specifically of any well that is operating with a too high oil-gas ratio. I only know about our own wells.

Q. Do you think there is a condition in East Texas that should be corrected with reference to waste?

A. Yes; I think the wells ought

not flow when they are making too much gas for a barrel of oil.

Questions by Senator Purl.

Q. Senator Pollard brought out from you that you were a specially college trained man, and have also had a number of years experience in the United States and in foreign fields also?

A. Yes, sir.

Q. He also brought out that you are now with the Gulf Production Company?

A. Yes, sir.

Q. The Gulf Production Company is one of the major oil companies, and they risk their money on your reports, and findings, and recommendations in these oil fields?

A. Yes, sir.

Q. Then you have to be about fifty-one per cent right or else you are wasting their money?

A. Something like that.

Q. Tell the committee, if you have not already done so, just what oil fields that you have been connected with in Texas—in general terms?

A. Well, I have been connected with the whole Ranger-Breckenridge situation. I worked for the Company and had charge of the geological work in the Northwestern extension of the Burkburnet Field. I had for a long time, and still have knowledge of the whole Panhandle situation. I had charge of West Texas from its inception, and our activities in West Texas were handled under my recommendations, in all those productive areas out there.

Q. Did that include the Winkler field, too?

A. Yes, sir.

Q. How much investment has your company made based on your recommendations?

A. I would hate to say.

Q. It has been stupendous, hasn't it?

A. Yes, sir; a great deal of money.

Q. What is your official title?

A. I am Chief Geologist for the Gulf Production Company.

Q. And your recommendations are the last word, so far as the geologists of your company, are concerned?

A. Yes, sir.

Senator Cousins: Mr. Chairman.

The Chairman: Will the Senator yield to Senator Cousins?

Senator Purl: Yes, sir.

Q. (By Senator Cousins) You say there are separate sands there. I would like for you to tell us your experience in the East Texas field that makes you believe there are separate sands, if you have any reason except the one you have stated.

Senator Purl: I think he answered that fully a while ago; you can ask the reporter to go back and find it in the record later.

Q. (By Senator Purl) Tell the committee in a brief way what is there peculiar to the East Texas field as an oil field that there is not in any of these other Texas fields?

A. It is the largest field in the United States. It has a very low—it is very easy to achieve a very low gas-oil ratio; it seems to be natural; there is not a great deal of gas in the field, as compared to other large oil fields.

Q. If this Legislature should pass a conservation law, having in mind the picture of the East Texas field, are we not liable to enact laws that will become the policy of this State based on the East Texas picture, that will not obtain in a few years?

A. Yes, if you have any particular field in mind when you pass a law. I don't think it would fit now, because, if a law, it would be applicable to all fields, and certainly conditions are different in the Big Lake Field from what they are in the East Texas field, and are different in the Refugio field than in East Texas, and in the Panhandle from what they are in East Texas.

Q. Also, wells are very different in the same area, are they not?

A. Yes, sir.

Q. Isn't it your idea that from the standpoint of conservation that the Railroad Commission should take into consideration the actual well, and not throw them all into one big package?

A. I think they ought to take the individual well, because if they pass an order in the early stages of the oil field, based upon some theory of what conditions are,—there are differences in opinion as to what conditions are; there seems to be a difference of opinion between myself and others about conditions. One of us is wrong. If they take

my view and pass a rule based on it, and operate under it for two years, they may do much damage to certain areas and property owners in the field, which cannot be repaired.

Q. You mean if your theory is incorrect?

A. If we find out two years later that this man or that was wrong, you would in the meantime have done great damage to property owners, and there would be no way of repairing that, and we are apt to be wrong.

Q. There has been a great deal said about underground waste, especially in the East Texas field, and the measure we have before us elaborates to a great extent on underground waste. Tell the committee about underground waste with reference to the East Texas field, or to the general situation?

A. Well, I have testified about underground waste in East Texas. I don't believe there is going to be any physical underground waste in East Texas, no matter how operated, because I think the water is going to wash all the oil into the wells eventually; for that reason I don't believe there is going to be any underground waste.

Q. What condition was the Winkler Field in, as compared to the East Texas Field, with reference to underground waste?

A. Well, a lot of people contend there has been underground waste in Winkler County; I don't think so. We have all lost a lot of money in that field, but we are eventually going to get all the oil, because the water is bringing it into the wells. So there is no physical underground waste in Winkler County.

Q. Based on the number of fields you have operated in and studied, which field would you say, if you know, has there been the greatest physical waste, both as to oil and gas, of all the fields you have operated in in Texas?

A. Well, as to oil, I don't know. It would be some field where you did not have an ample water drive, or where you had dissipated the gas early in the history of the field. Probably, it would be the northwest extension of the Burkburnet Field, where there were a lot of little farms, and properties were small, and it was drilled very thickly;

even there, there was not really so much waste.

Q. Which section has the greatest waste as to gas, would you say?

A. They are bringing out more gas per barrel of oil produced in the deep pay at Big Lake—the 8500 foot pay at Big Lake—and certain wells in the Panhandle, than anywhere else.

Q. If you will turn to this map, I think it is supposed to exemplify underground waste. I wish you would elaborate on that.

A. I assume the blue is water.

Q. The blue is water, and the black is oil.

A. And these are patches of oil surrounded by water?

Q. That is the way, I understand it.

A. My theory about that condition now taking place is this: If you take water out of this well,—water, oil, or any fluid, this water will keep moving and bringing this oil into this well, and this oil into that one (illustrating in map).

Questions by Senator Rawlings.

Q. Mr. Belt, when I interrogated you about water coming and trapping oil and causing waste, as I understand the matter on this Exhibit "F," Mr. Foran explained that the black spots surrounded by blue represented oil deposits that had been trapped off, and that those deposits would never be recovered again; do you subscribe to that theory?

A. No, sir; if you are going to continue to take fluid out of here, you are eventually going to get all that oil, because the water is going to wash it into the well.

Q. (By Senator Pollard) Oil is lighter than water?

A. Yes, sir.

Questions by Senator Purl.

Q. Mr. Landreth testified yesterday in the House that out of twelve years experience as an oil operator in Texas, describing the early efforts at proration in West Texas, he challenged a statement of Underwood Nazro before the Senate Committee that the Gulf Company had not drilled unnecessary wells. On the contrary Mr. Landreth said the company had moved rigs in and drilled forty-eight wells in eight months on a lease adjoining him, forcing a

drilling and storage campaign or a decline of his leases. Will you tell us about that, if you know, whether that is correct or not?

A. I think Mr. Landreth just stated what the Gulf did as a physical condition he had to contend with. I think Mr. Landreth and myself were both victims of circumstances. He had a strip of acreage four hundred feet wide abutting some six or eight thousand acres of oil land in one body, which also abutted us. North of him was another owner, and the other owner started a drilling campaign, and Landreth and we had to respond to it to keep our property from being drained. Once that drilling campaign started, since we had several thousand acres immediately adjacent to where this was going on, we had to attempt to protect this several thousand acres of land—the body of which we have not drilled—from drainage by drilling three rows of wells, which resulted in an enormous number of wells being drilled. I don't think either we or Mr. Landreth was to blame. Somebody started the line fight and we had to answer it.

Q. He stated that reckless practice in the Winkler County Field has cost 200,000,000 barrels of oil that ultimately should have been recovered—that is Mr. Landreth's statement. Would you say that is correct or not?

A. Bear in mind that oil men and geologists and all of us, we are just testifying to what our opinions are. That is his opinion, and not mine. It is not my opinion that any oil has been wasted in Winkler County. I don't think there has been any waste; the water will bring all the oil in to the wells, and it will be produced.

Q. What is your idea—

A. I want to qualify that. There has been a tremendous loss to us operators. We have lost a lot of money, because we are lifting it, when we could have flowed it; but there has been no dissipation or waste of oil, but it will cost a lot of money to produce it.

Q. But this salt water when brought to the top might constitute a menace. How would you dispose of that salt water? How do you intend to handle that?

A. I don't know. We are going to postpone it as long as we can.

I don't know what we are going to do with it.

Q. There has been testimony here as to what the major oil people thought about legislation, and some independents have testified what they thought of it, and I realize you are with a major company, but what do geologists, generally, think the Legislature can do to help the situation in Texas at this time, if anything?

A. I think the present statute is just about as far as we can go. As was said a while ago in talking to Senator,—I forgot his name.

Q. Senator Rawlings?

A. He asked me what kind of law they should pass and I said that if it was law aimed at any one oil field it would be wrong in all of the others. Your attempt of the State and of its Commission has got to be such a law under which they can keep reducing waste, not stopping it. If you say we have got to stop waste, it will mean you will stop producing oil. We have a law which permits them to reduce waste and we ought to keep on along those lines. If you pass a law in a specific case you will do a great deal of harm,—with one oil field in mind it will do a great deal of harm in another oil field. I think any law specially about gas would do the operators in the Panhandle and in the Refugio field untold harm because they have problems in gas and oil where they can not get good gas oil ratios and if you regulate them too much it will mean they go out of business.

Q. Could you tell us what has been the acre recovery in Winkler County up to date, or reasonably up to date?

A. I don't know that I can. I think it has been,— I think it has produced about 140 million barrels of oil. That is my off-hand recollection. I only notice those things once or twice a year but that is as close as I can get to it. If there were seven thousand acres in the field that would be twenty thousand barrels per acre. Another fellow might be more meticulous and say what it was and come to the conclusion there was less than seven thousand acres, and that would be considerable more per acre.

Q. Answer the same question concerning the Yates field, please.

A. Yates, produced, the best I can remember it,—this will not be accurate, because, as I say, I have occasion two or three or four times a year to check it up, and my best recollection is Yates is about 125 million barrels.

Q. How many acres?

A. Well, there again, it is variable. There is no more than fourteen nor much less than twelve thousand acres. No more than fourteen thousand acres and not much less than twelve thousand acres, so at twelve thousand acres that would be about ten thousand barrels per acre.

Q. Now, which one these fields are prorated and which is not prorated? Winkler County is not prorated, is it?

A. Yes, sir, it is prorated. It is prorated and so was Yates.

Q. Have both of them been prorated along the same period of time?

A. Yes, sir, except that Yates,— they went under proration about the same time, but Winkler had been developed more at the time proration was established than Yates had.

Q. During the life of the Yates field it was prorated longer than the Winkler field?

A. There were a lot of wells, a great many more wells already drilled in Winkler when they established proration than there were in Yates.

Q. The Winkler field ran a while, a long time before it was prorated?

A. Yes, sir.

Q. And Yates was prorated immediately?

A. Yes, sir.

Q. The field that was not prorated produced more oil than the one that was prorated. Isn't that true?

A. Yes, sir.

Q. What does that indicate?

A. It is not time to compare them yet on recovery because the Yates pool is not any way near as much depleted in its total reserve as Winkler is.

Q. In your opinion would you get more ultimate recovery from a field by drilling in the center of the field than by drilling several all over the field?

A. Well, that depends on the field again. If it is a limestone field, the very poorest limestone field, you could drill fewer wells, but if a sand

field you have to drill all over the field.

Q. Otherwise you would discriminate against the royalty owners?

A. Yes, sir, and you are asking the fluid to travel too far if you do not have wells to serve all parts of the field,—the fluid will not travel that far.

Q. Do you know of any specific waste in West Texas which ought to have laws passed to cure?

A. No.

Q. How about the Amarillo fields, around the Amarillo field in this great production of gas?

A. As I say, there is no gain-saying they are producing a great deal of gas to get their oil up, but the present law gives them the right when they are doing it unnecessarily to stop it. Those people have got to produce that oil, they have got to get their money on it, and the present law is about all you can do with it.

Q. Do you think pipe lines ought to be required to take ratably?

A. Well, I don't know. I haven't given the matter much thought. I don't work for the pipe line company and don't have much to do with buying oil.

Q. I want this for my own information. How do you determine what is a gas field and what is an oil field from the standpoint of conservation? If it takes fifty times as much gas to produce,—fifty times the value in gas to produce the oil should we not put it down as a gas well? What would be your definition of a gas well and an oil well? That is, gas and oil is in both of them?

A. That is a very difficult problem and that is the reason why we can't get too specific with these laws.

Q. Are you burning any gas now just to dispose of it and relieve the hazard?

A. Yes, sir, I think we have flambeaux on our wells in East Texas.

Q. Are you willing to sell it or give it away to get rid of it?

A. Yes, I don't see why we would not give it away. We possibly would not make a long time contract, because as I say, it is going to be profitable to make it into casinghead gas. I do not see why we would not give it away now, if we are going

to burn it anyhow, but we would not make a long time contract.

Q. Why are you burning it?

A. There is nothing we can do with it.

Q. Does it constitute a fire hazard?

A. Yes, sir. It has to be burned. You can't let it hang as a cloud over there because the whole atmosphere would get so it would ignite.

Q. Should gas companies be required to take the casinghead gas before they take the other form of gas, dry gas?

A. It would be a fine thing if they would.

Q. That would be conservation?

A. Yes, sir, it would be conservation, but I don't know,—all of these things are legal questions and I am not a lawyer. It is a question of whether you could require them to scrap all of their investment — —

Q. (Interrupting) If they are burning that gas and wasting it because they have to get rid of it, get rid of the hazard, shouldn't this Legislature pass some sort of measure that would require them to take that gas to the consumer?

A. After they spent several million dollars to take care of that condition and it would last a year and they would never get their money back?

Q. That is what I want to find out.

A. I suppose you can do it. It is purely a legal question.

Q. And it is an economic question. Should we conserve it by requiring them to properly dispose of it rather than burn it?

A. It looks to me like you have got to temper the wind to the shorn lamb. I don't see how you can make the gas company spend that money and scrap the investment as soon as there is not a supply of gas.

Q. Then you would say the gas you are burning is being burned because there is no practical way to dispose of it and in order to relieve yourself of a hazard?

A. It is typical of our oil fields and always has been. You have got a peak load situation where you have a lot of gas on hand that it does not pay to put plants in to come and get it.

Q. But it has served the purpose in bringing the oil up?

A. Yes, it has already lifted the oil for us.

Q. I think that is all.

Senator Cousins: I have one more question.

The Chairman: Senator Cousins.

Questions by Senator Cousins.

Q. If you haven't already done so, tell us why you think Texas is in separate sand, or a separate pool, however you want to call it? Give us your statement along that line?

A. As I said a while ago, in the Snavelly well they drilled seven feet in sand and forty feet in shale and backed into an oil sand. On our Brightwell well down north of Krim area, we drilled about five feet of sand and thirty feet of shale and back into an oil sand. On our Birdsong lease we drilled forty feet in sand from the time we entered it ten feet in shale and back into an oil sand. If it were all one sand you would not be running into those shale breaks. We have had a number of those cases and those are typical of what we are finding. We are not finding solid sand. After we enter the sand we do not drill solid sand in any well.

Q. The question may seem foolish, but I don't know anything about the oil business, but in coring that sand, does your sand resemble—

A. If you run a core barrel of it you get a round piece of sandstone, pretty soft, but it is kind of like the stuff you build a house out of.

Q. All about alike?

A. Yes, sir.

Q. Is the shale all about alike, too?

A. No, sir.

Q. Is the shale different?

A. Yes, sir, it is different. In one place we will drill out of this sand and drill into a blue shale and in places we drill into a red shale.

Q. And those differences in the shale are one indication of why you think it is different sand?

A. Yes, sir. Certainly in the Snavelly well there would be no question that that well flowing in the first sand that was struck would have no effect on the nearby well flowing in the second, never.

Q. In that field in East Texas there, have you missed getting oil in wells in that area?

A. Yes, sir, there have been dry holes, but they are, so to speak, outside of the oil fields. When you get so far East you finally come to an area where there is no sand at all.

Q. In the proven field they have gotten wells everywhere they have drilled?

A. Yes, sir.

Q. I think that is all.

Questions by Senator Woodward.

Q. In your experience as a geologist what has been the largest unit of uninterrupted gas-bearing sand?

A. Pure gas?

Q. I am talking about your experience.

A. You say of uninterrupted gas-bearing sand. Do you mean sand that makes a gas well?

Q. I mean oil, I beg your pardon, I mean oil. In your experience over there in aiding your company in its locations, what has been the largest single unit of oil-bearing sand?

A. It isn't a single unit. There are a number of sands. There is one big area that is all production of oil, but it is my idea, because we haven't started from well to well, there hasn't been enough wells to test it—

Q. (Interrupting) I asked you what has been the largest single unit of oil-bearing sand you have encountered for the Gulf Company over there?

A. I don't know that I understand your question.

Q. I will illustrate. Suppose there was a twenty-acre lease and upon that lease there were wells in practically the four corners and some along the line, and one or two in the center, all producing oil,—does that condition exist in places?

A. They all produce oil, yes, sir.

Q. Is that indicative of a single unit beneath the surface?

A. Not necessarily.

Q. With no dry holes encountered?

A. No dry holes—

Q. (Interrupting.) With no dry holes encountered, no salt water encountered, all producing oil, you would not say that was indicative of one solid pool of oil beneath that twenty-acre formation of the wells practically the same?

A. Bear in mind, Senator, in our

wells, and most of the other wells, we only penetrate the sand twenty feet.

Q. Well, all right, where you penetrate the sand twenty feet, and it is a twenty-acre tract, let's say for an illustration, they are all producing, you have not encountered salt water, the formation is practically the same, and you have not struck any dry holes, wouldn't you say that was indicative of the fact that beneath the twenty acres there was one solid uninterrupted strata or layer of producing sand?

A. On that twenty acres, yes.

Q. If that is true, why couldn't that twenty acres be treated as a unit with respect to conservation of the wells on that particular twenty acres?

A. It could be.

Q. Then you wouldn't have to deal with each well separately, would you?

A. Well, a different condition could exist.

Q. But you could treat it as a unit?

A. Once you had ascertained that, yes.

Q. If it was forty acres you could do the same thing?

A. Yes, once you had ascertained that.

Q. And if it was a hundred acres you could treat it as a unit?

A. Yes, once you had ascertained that fact.

Q. And you could keep going on with that?

A. You will never know it until the wells have gone far enough in to connect the sand up from the twenty acres to the hundred acres and then to the field, but somewhere you are making a false assumption.

Q. Now, we will take the same twenty acres, say upon that twenty acres you have twenty wells or fifteen wells or ten wells we will say?

A. There would not be that many.

Q. Well, there are conditions like that?

A. No.

Q. Not in the State?

A. Not in East Texas.

Q. Say there are four wells, you will find that many?

A. Yes, sir.

Q. You could say five wells, there could be one on each corner and one in the center?

A. Yes, sir.

Q. And that would be typical?

A. Yes, sir.

Q. Now, under those conditions where there are five wells on the twenty acres, is it not a fact that the operation of one well will have some bearing on and reflect its operation on some other well in that particular twenty acres?

A. Yes, sir.

Q. Then if that is the case, it would indicate that there is no division of the oil sands by this shale you are talking about?

A. As to that twenty acres, no, sir.

Q. Now let's extend it, couldn't that same condition exist with reference to a fifty-acre tract?

A. Yes, it could but it would have to be subjected to proof.

Q. I am talking about if it has been done?

A. Yes, sir.

Q. Don't they actually do that in instances?

A. In instances, yes.

Q. Now then, have you ever observed in your service for the company that a well would be drilled into the pay sand and after operating it awhile, whether in East Texas or any other field, that in an attempt to go further you would encounter salt water?

A. Yes, sir.

Q. Have you also observed the encroachment of salt water in those wells where you did not attempt to go further?

A. Yes, sir.

Q. And did you observe that in those instances sometimes a well was plugged and abandoned?

A. Yes, sir, because you could not lift the water out, it would cost too much.

Q. How, then, if as you say, that the salt water will eventually bring the oil to it, what was the object of plugging it?

A. Because you could not make any money on it.

Q. You just abandoned the well?

A. Yes, sir.

Q. Now, I will take the map that is now before us as an illustration to be used in the question I want to ask you, assuming that the black represents oil sands which have been trapped off by salt water, taking well number one as an illustration, show-

ing it to be in a salt water, is it your theory that by continued operation and producing salt water that you would eventually suck into the well, or there would be forced into the well the oil that is illustrated by the extreme left hand black spot?

A. Yes, sir.

Q. Then there would no necessity in plugging a well that produced salt water?

A. Yes, sir.

Q. Because finally you are going to suck some oil in there?

A. Yes, sir.

Q. So this theory of plugging a well on account of salt water is pure bunk?

A. Well, if you are making some oil, yes, but you may be making all water. You take a well over on the edge of the field and it is making all salt water, if you continue to operate the well you would get nothing but salt water.

Q. Well, number one is in the salt water?

A. Yes, sir.

Q. And surrounding it we find seven oil-bearing sands which have been trapped by salt water?

A. Yes, sir.

Q. You can continue to operate well number three from a particular sand, and you would suck the oil from the sand just beneath the well?

A. This well here won't have a period when it produces all water. If you keep pumping it you will be concurrently pumping oil and water.

Q. Well, according to that illustration, there is salt water between the sands that have been trapped off some way?

A. Well number three is located within the body of the oil field, that well would never get to where it was making no oil, it would continue to make oil and water.

Q. Well then, there never would be a time when you would just get salt water?

A. Not until you had washed all of the oil in there.

Q. Then after a period of time that would be indefinite?

A. Indefinite until you had washed all of your oil in there.

Q. How would you find out you had washed all of the oil in there?

A. When the well ceased to be paying, then you would quit.

Q. Then the theory of plugging

a well because of salt water is a fallacy?

A. If it is making oil and water and it is paying its board, you continue to operate it. You might quit it, you might say you could not operate it, and then when the price comes around right you can produce oil and water from it.

Q. Then when some fellow comes around and operates it there may be a time when it will make all oil and no water?

A. There never will be such a period, the well will always be making oil and water. All of the wells in Smackover did it, and the wells at Powell did it, and they finally went to all water.

Q. The Winkler field has not been prorated in the same manner as the Yates field?

A. No, sir, there were a lot of wells drilled and a lot of them in when the order was issued, and as a result it was more closely drilled.

Q. Winkler is showing a depletion much faster than Yates?

A. Yes, sir.

Q. Did the question of orderly production have anything to do with that?

A. I don't think so, because the production rates in proportion to the number of acres involved was much higher at Winkler; you simply took the oil out and it is gone.

Q. Orderly production has nothing to do with it?

A. Orderly production caused it to cost us a frightful amount of money to drill and develop that field.

Q. What about the encroachment of salt water in the two fields, which showed up first?

A. They are hardly parallel cases.

Q. Whether they are parallel or not where did the salt water show up first?

A. Oh, it showed up first with respect to the age of the field and the amount of the oil taken, it showed up quicker in Winkler.

Q. That field was prorated?

A: It was prorated, but there was an unnecessary number of wells drilled, it was not prorated in the early stages.

Q. Assuming on this map Wells 1, 2, 3, 4, and 5, represent wells three hundred feet apart, is there any conditions whereby in the operation of Number 5, its operation

would be reflected in any manner to Well Number 1?

A. What was that?

Q. Is there any condition whereby in the operation of well number 5, that there would be a reflection of its operation in Well Number 1, assuming they are three hundred feet apart?

A. I just want to tell you if we make that assumption what we are going to do, we are assuming that the oil field is only twelve hundred feet wide.

Q. Well, say we just tapped it in a field that day?

A. Yes. Now what was the question?

Q. Assuming that there is a pool, and oil-bearing sand that is about twelve or fifteen hundred feet in length, and you drill these wells there, is there a condition whereby in the operation of Well Number 5, its operation would be reflected in Well Number 1, you are assuming that there is an oil sand in there that is not all spotted up?

Q. Yes, sir, a solid body?

A. Well, the operation of Number 1 is going to affect it in this way, it is going to draw some oil out, that is only twelve hundred feet, why I suppose there will be some adjustment at number one.

Q. Wouldn't that be true with reference to salt water encroachment?

A. Your question concretely is taking oil out of a well at top did, does that affect a well further down?

Q. Yes.

A. Yes, sir.

Q. In other words, the operation of one well under certain conditions may endanger another well twelve hundred feet away with respect to water?

A. It all depends on what you mean by endanger. Well Number 1 has got to take its oil and when the oil is gone neither one of them is going to get any. Under that theory it is dangerous to produce the property.

Q. Is it not a fact that you could so operate Number 5 as to injure Well Number 1 by hurriedly bringing about the encroachment of salt water?

A. Oh, you could endanger a well six or eight hundred feet away, I suppose you could endanger it some

twelve hundred feet away if by endanger you mean salt water.

Q. Well, by reducing the ultimate recovery?

A. You won't endanger the ultimate recovery.

Q. Then you couldn't so operate one well as to endanger the recovery in another well?

A. Not under these conditions.

Q. Under what conditions could you do it?

A. Well, if it is a water drive field you can't do it. If the oil is to be extracted entirely by gas you could do it. Where there is no water behind the oil. If the water is behind the oil you are going to get it because the water will bring it to you.

Q. Of course, if there was a hard shale that was not porous that would not be true because it cuts it off?

A. It cuts it off and the two wells would not be interrelated.

Q. Have you been over the East Texas field considerably since proration was established?

A. Yes, I have been there three or four times.

Q. Have you observed the manner in which your company's wells and other wells are being operated?

A. Yes, sir.

Q. Who is regarded, I am speaking as to the rumors, who is regarded as among the chief violators of the Commission's order?

A. Do you really want me to talk about the neighbors. I do not like to do it, frankly. I think the Railroad Commission would tell you. I don't like to come up here and talk about the neighbors, but if it is absolutely necessary I will do it, but I don't like to do so.

Q. It is not necessary, so far as I am concerned. I have heard that one group is responsible and that another group is responsible.

A. I could tell you but I don't like to talk about the other companies and say what this or that company is doing, because they might talk about me and they might be mistaken.

Q. I don't care to embarrass you, it is not necessary. I believe that is all.

The Chair: Are there any further questions?

Senator DeBerry: Mr. Chairman, I would like to ask a few questions.

The Chair: All right, Senator DeBerry.

Questions by Senator DeBerry.

Q. If I understand you your main contest with respect to the difference in geology as to the sand in East Texas, as between Mr. Foran's testimony, if it be what we say it was, is that you claim that sand has stratification, or strata of shale in it, that it is not one sand bed, is that right?

A. Yes, sir.

Q. In the logs of those wells you spoke of, owned by your company or drilled by your company, are those beds of shale through which you bored, were they highly impervious, or not?

A. Well, we all thought, we made no tests of them, we thought they were ordinary shales and in our experience we did not get water in shale, or oil and gas, those were just ordinary looking shales, which we would presume to be impervious.

Q. Shales sometimes show their oil in commercial quantities, do they not?

A. Yes, sir, but it is a very peculiar kind of shale; it is a shale that has been squeezed and crowded together and it is very hard and it has creeks in it. It is not the kind of shale they find in East Texas.

Q. So, without making any further experimentation you would say that is a shale through which oil and water would not pass?

A. Yes, sir.

Q. Would it, or not, be extraordinary, based upon your observation and knowledge of geology, for a field as large as East Texas field to be composed solely of one sand from its top to its bottom?

A. Yes, sir. It is not at all impossible, I believe the probabilities are against such a condition existing.

Q. In other words, that large an area, from your observation and experience in geology, you would expect to find shale in it, would you not?

A. Yes, sir.

Q. Now, I want to go to the West Texas field a little while. The testimony, and it has been gathered here this morning, I want to get it down to my satisfaction a little better, just in the Yates pool and the Winkler pool. The Yates pool not having had as much salt water experience as the Winkler pool, was that because of proration, or not?

A. In part they avoided salt water in Yates certainly, we have been able to avoid salt water in Yates by proration. Winkler as I said awhile ago, experienced a good deal by comparison, but Winkler had certain characteristics right from the start that Yates did not have.

Q. That is what I want to bring out.

A. In the Winkler field, and the sixth well drilled in there, drilled on the top of the structure. It may have been the tenth well, it was drilled by the Shell people. It was drilled into the first oil and it was very low on the structure. At that time there had been no heavy withdrawals from the field. The well started bringing oil, was not drilled too deep, started making oil. They opened it up one day, and as I remember it made over twenty thousand barrels of pure oil, and a very short time later it went to making water and went to eighty per cent water. I have never known, and do not know yet, whether the water was in the limestone at the top of the structure, as compared to wells further that did not have water, or whether it was due to improper completion of that well, or a nearby well, it has never been explained.

Q. And that did not happen in the Yates field?

A. No, that did not happen in the Yates field. We did not get water on the high part of the Yates field, shallow in the limestone.

Q. Then the fact that that well conducted itself in that manner it is hard to explain, could proration stop water in the Winkler field if you had had the proper exercise of authority, could you have gone in there and shut that one down or open another one up to stop that water hazard?

A. They could have drilled it cooperatively and I believe if the Shell people had had the assurance that other people would have made the same effort to avoid it, it might have been a good thing to plug that well up, cement it clear up and not operate it again. Had the field been jointly owned, so that the man would know what was being done. An individual owner would have followed that and it would not have created the difficulty there.

Q. Well, I take it from your tes-

timony that you don't consider salt water as much of a hazard as some of the other men who have testified. Where salt water appears early in a field, as a rule, whether it could be avoided or not, as a rule it makes the recovery of oil cost more than if ultimate recovery is not taken into consideration?

A. Yes, sir.

Q. It does?

A. Yes, sir.

Q. Well, I want to jump there—I want to leave the border of the United State a little while. I understood you to say in answer to someone else's question a while ago that you had had some experience in geological research with respect to oil outside of the United States. Where was that?

A. Well, I did the most of my work in Mexico. In the other two countries I worked in there was not any important amount of oil produced. I was connected with the producing efforts of a Mexican oil company, which is a subsidiary of the Pennsylvania Oil Company, and I was working for an English oil company, which was the pioneer in the Mexican field.

Q. You have done quite a bit of work in Mexico?

A. Yes, sir.

Q. What other countries?

A. I made two trips at various times to Cuba. They had some excitement there. The first time, I went there for the Mexican Eagle Oil Company, and the second time I went there for the Gulf Company. Neither time did I recommend that we take any oil land or drill any wells.

Q. How about the Venezuela proposition? Do you know anything about that?

A. No, sir. I have never been to Venezuela.

Q. Do you know anything about the South American situation?

A. No, sir; I have never been to South America.

Q. Have you any well defined opinion as to the potentiality or possibility of securing large amounts of oil other than in the United States—that is anything specific? Of course, that is generally speaking.

A. If I had the opportunity of just talking about what I have read and what various geologists have

told me and what oil men have told me, I can tell you something about that.

Q. All right. I want a little of that.

A. You all know Venezuela is a large oil producing country. Persia is a very large producing country. In fact, until East Texas came in the two Persian fields that have been developed were the two largest single oil fields in the world, and the sand there is immensely prolific—the Persian fields are. Russia, I know nothing about, except generally that there is a great deal of oil there. I know that there is a great deal of oil in the Dutch East Indies.

Q. Has your company extensive holdings outside of the United States?

A. Yes, sir; they have rather extensive holdings in Venezuela and they produce oil there. They have holdings in Columbia, but they do not produce any oil there.

Q. Do you know anything about how much acreage they have in the Venezuelan country or field?

A. No, I don't. If you mean proven acreage—productive acreage, I can make a mere guess.

Q. All right. Guess at it—well this is what I am asking you: If you can say on structure that you bought because you thought it had (question interrupted.)

A. No, I would not know that; I have just heard that by talking to the boys and I am repeating gossip or just informal information, but I have information that proven acreage in Venezuela, partially depleted,—we have somewhere between six and eight thousand acres.

Q. In Venezuelan acreage?

A. Yes, sir.

Q. How much have you that has not been explored?

A. I don't know.

Q. Quite a body?

A. Yes, sir; a substantial share.

Q. Now, in the Columbian situation you have got acreage there?

A. Yes, sir.

Q. Could you give us an estimate as to the acreage?

A. I don't think I should guess. I really don't know.

Q. I understand.

A. I will say this, if it will help you some: I will say that when you go into a tropical country and where

you go up rivers and clean out rivers and build your own long transportation lines you simply don't deal in small acreage; a one hundred thousand acre tract would not be a big tract of land.

Q. I am not trying to arrive at any values.

A. So, if I said — —

Q. Other than this thought. I am trying to develop this thought: My observation has been that when a country surrounds itself by some artificial well and boosts the price and somebody finds that they have got somewhere else or makes what they have been making somewhere else, and finally they turn around and kick themselves in the face. Now, by some artificial methods, either in the name of conservation or a tariff, if the price of oil should go to a dollar or a dollar and a half in this country, do you think you could get some cheaper oil and put up some refineries over there and get some of the world trade we have been kidding ourselves into believing that we have got?

A. Yes, sir; whenever you artificially raise the price of a commodity somebody else is going to take your business.

Q. That is all.

The Chairman: Any further questions. If not, Mr. Belt, I want to thank you for the committee for your presence here and the testimony you have given and the manner in which you have given it. Mr. McLaughlin, come around.

R. B. McLaughlin was sworn by the Chairman.

The Chairman: State your name, residence, and whom you represent.

The Witness: R. B. McLaughlin. I am Secretary and Assistant Treasurer of The Texas Pipeline Company, Houston, Texas.

Senator Woodul: You have a statement you would like to make, have you not?

The Witness: If you please, sir.

Senator Woodul: All right.

The Witness: In February, 1917, by the enactment of the Texas Legislature oil pipeline companies were declared to be common carriers and placed under the jurisdiction of the Railroad Commission of the State. However, by virtue of the so-called Hepburn amendment of June 6, 1916, carriers by pipe line were de-

clared to be common carriers and placed under the jurisdiction of the Interstate Commerce Commission. The Texas Pipe Line Company, a Texas corporation, operates within the states of New Mexico, Texas, Louisiana, and Arkansas. It accepts for transportation oil destined for transportation for intrastate as well as interstate points. Being an interstate company, we are under the jurisdiction of the Interstate Commerce Commission, who prescribes the regulations governing our accounting. This is known as the issue of 1915, effective January 1st, 1915. Pipe lines now and always have been primarily a plant facility, as a major portion of said lines are used exclusively by the controlling company and they could not operate or exist unless they were connected and controlled by a producing, a refining, and a marketing company so as to insure sufficient tonnage to justify the cost of constructing and operating said pipe lines. For example, in 1909 we contemplated the construction of an eight-inch line from Port Arthur to Shreveport, Louisiana. The Texas Company erected one million, one hundred twenty-five thousand barrels of storage at Shreveport and purchased sufficient oil to fill it for the sole purpose of moving an additional quantity in addition to the quantity that they could subsequently produce or purchase, (interruption).

The Chairman: Pardon an interruption.

The Witness: Yes, sir.

The Chairman: Senator Pollard, are you through with this map?

Senator Pollard: I think we will have Mr. Goldston back here this afternoon, and we will need it.

The Chairman: Let's set it down here. All right, Mr. McLaughlin.

The Witness: In 1923 we constructed a ten-inch line from Shreveport, Louisiana, to Lloumann, Arkansas. The Texas Company erected sufficient storage and purchased sufficient oil to provide necessary tonnage for said line. In 1928 our line was extended from Electra to the Panhandle area. The Texas Company purchased a million barrels more of storage, together with a like amount of crude, to provide tonnage for the line. In 1928, when we undertook the construction of a twelve-inch line from

Houston to the East Texas area, The Texas Company purchased six million dollars worth of tankage, oil, and property from one concern and twenty-five hundred thousand barrels of oil from another concern to insure tonnage for the East Texas line. However, today there is particularly no market for this high sulphur content oil from West Texas, because of the development of large production of crude superior in quality from other districts.

The cost of this tankage, as well as the loss in inventory value of the oil, has been borne by The Texas Company. However, if we were not affiliated with said company and endeavored to operate the pipe line independently, it would necessitate the pipe line investing in the tankage and oil if they hoped to remain in business, and if this tankage and oil were taken into consideration it would greatly enhance our investment value and materially reduce our earnings. During the years of 1920 to 1930, inclusive, our trunk lines in certain sections have been paralleled or looped and branch lines extended to the various fields, together with necessary gathering line systems, until today we have a net work of 9100 miles of telephone lines, 1188 miles of flow lines, and 4873 miles of various size gathering lines, and have extended into four different states and handle approximately one hundred seventy-five thousand barrels of forty different kinds of crude daily. During the period of twenty-eight years lines have been laid, renewed, and withdrawn from service and original station equipment was later replaced with more modern steam equipment, and subsequently replaced with Diesel motor driven equipment, and today our investment in pipe lines as of December 31, 1930, was approximately fifty-four million, five hundred thousand dollars. The net earnings of The Texas Pipe Line Company for a period of eleven years from 1920 to 1930, inclusive, was fourteen per cent. The low was eight per cent in 1920, and the high was eighteen per cent in 1930. On a basis of reports filed by the Interstate Commerce Commission of thirty-nine carriers by pipe line, doing an interstate business in the United States, the average for the fifteen year period was fifteen and

four-fifths per cent—for the eleven year period that should be instead of fifteen. Considering the net earnings of the pipe line company, consideration must be given to the factor of depreciation. The depreciation, as commonly used by all carriers by pipe line, is what is commonly known as the straight line method. It is determined on the basis of the estimated serviceable life of the physical property and not the life of the field or section in which the facilities serve. For example, the depreciation on our main lines was based on a twenty-five year life and our district lines on a twenty year life. There is no line of this company or any other company, as constructed, that enjoys a ten year economic life, except those being fortunate enough to have been situated in an area where new pools have been developed and branch lines extended to obtain additional tonnage to provide the economic operation of said line. For example, in 1929 we expended in excess of thirteen million dollars covering construction of lines and necessary stations to serve our West Texas area, which we are depreciating at the rate of four and one-half per cent per annum, and charging off annually six hundred thousand dollars based on existing depletion due to the decline of production in the West Texas area; and the estimated economic life of the field is five years. Our depreciation now—if computed on a basis of depletion of the field would be an annual charge-off of two million six hundred thousand dollars, or an increase of two million dollars. The Interstate Commerce Commission states that charges to operating expenses for depreciation on the life of the property are to be based on estimates which must be adjusted at the time the property is retired and the actual depreciation ascertained. In considering the question of depreciation as applicable to pipe lines, consideration must be given to the following laws: first, physical depreciation and decay; second, obsolescence; third, inadequacy; fourth, termination of use of the plant through cessation or depletion of production of the commodities which the pipe lines are designated to handle. The final exhaustion of an oil pool is a governing factor in get-

ting depreciation of pipe line property. Viewing it in a broad sense, and using hypothetical case, if we can assume the date is fixed when the last barrel of petroleum will be extracted from the earth, then between the present time and that date the companies now engaged in the business and the companies that may enter the business must return to themselves the cost of the facilities employed or to be on hand at the expiration—or have on hand a plant that will be worthless.

Senator Williamson: Will the gentleman yield for a question?

The Witness: Yes, sir.

The Chairman: All right; Senator.

Questions by Senator Williamson.

Q. You made the statement that for over a period of eleven years your earnings were fourteen per cent average.

A. Yes, sir.

Q. You of course set up depreciation reserve before taking into consideration the dividend declared.

A. Yes, sir.

Q. What is your depreciation reserve as per percentage of capital that you have now set up for that purpose?

A. Off hand, I would say approximately forty per cent.

Q. Forty per cent of your capital?

A. I am giving this from memory.

Senator Williamson: Yes, sir. That is all right.

Questions by Senator Woodruff.

Q. Does that mean, Mr. McLaughlin, you charge off forty per cent of the capital stock to depreciation?

A. No, sir; it means each year we charge off five and one-half or six per cent to depreciation accrual.

Q. Your depreciation account carries five per cent per year on the invested capital?

A. Well, that is only on your depreciable property, Senator.

Q. I am talking about depreciable property.

A. Under the straight line method, when you have charged off one hundred per cent reserve you cease to charge off depreciation, so it would not mean six per cent of your total investment for the year; it would be six per cent of your depreciable property. Depreciable

property would be the property that has not been fully depreciated or lands and right-of-way which the Commission says are not depreciable.

The Chairman: All right, Mr. McLaughlin.

The Witness: It would be difficult to find a similar business that operates under like conditions. A railroad extension is made for the same reason that a pipe line extension is made, namely, to reach new business; but there the similarity ceases. The influx of new business from the railroad extension does not lessen the business of the main line business. In the case of a pipe line going into new territory there is generally no such opportunity for developing additional business. One commodity can be handled by the pipe lines and there is a constantly diminishing supply, so that there is never a greater supply to be transported than at the beginning. It is true the development of new pools, largely increasing through wells, may require transportation of large quantities at a given time, often to the extent of requiring the pipe line company to lay one or more additional lines to the field to handle the oil, because it is necessary to be able to handle the oil when it is there. This diminishes the quantity of oil and consequently hastens the day when the pool will cease to be a producing factor, rendering one or more pipe lines useless. The original pipe line equipment can not be taken up and used for extension, because it is necessary to maintain the same facilities to carry the oil from the contemplated extension to its destination. Thus, it can be seen readily that expenditures for the extension of existing pipe lines may simply mean the maintenance of existing business without increasing any revenue.

The Chairman: Members of the Committee, it is twelve o'clock. What is the pleasure of the committee?

Upon motion duly made and seconded a recess was taken until 1:30 p. m.

Afternoon Session.

The Chairman: The committee on State Affairs will please come to order. Proceed, Mr. McLaughlin.

R. B. McLaughlin, a witness, resumed his testimony as follows:

The witness: The properties of a

pipe line company are customarily divided into two general divisions, namely, the Gathering Line System and the Trunk Line System.

The services performed by the Gathering Line System begins with receiving of the oil from producers' wells or settling tanks and delivering same through gathering facilities to point of connection with the trunk pipe lines for transportation beyond the gathering district, and such other operations within the district as are incident to the gathering service.

The Trunk Line Service is the transporting of the oil from points at which received from the Gathering Line System to (1) connecting trunk lines, (2) refineries, (3) ocean-going tankers, (4) or other destinations.

A pipe line system must be operated at 100% efficiency in order to avoid interruption in service, excess oil losses and damages to property resulting therefrom. This necessitates constant renewal of various sections, which is not reflected as a charge against Plant Investment or as an Operating Cost, but is charged against the Depreciation Accrual. In certain sections where the pipe is materially affected by corrosion, these lines must be thoroughly cleaned and painted, and to do so requires that the pipe must be uncovered, taken out of the ditch, cleaned, treated, repaired, where necessary, new pipe line protection applied, and then put back in the ditch and backfilled. This expenditure again must be classified as a renewal and charged to depreciation accrual and therefore does not reflect either in the operating cost or the plant investment. Expenditures of this nature will run into hundreds of thousands of dollars per year.

To my personal knowledge the Texas Pipe Line Company has never refused to accept any oil tendered for transportation and have solicited business and extended lines to handle said business wherever the volume appeared to be sufficient to justify the extension, and also, to my personal knowledge we have never been tendered any oil for transportation to seaports, except by other major companies. The pipe line system was used exclusively by the Texas Company from 1902 to 1910, in-

clusive, and from 1911 to 1915—

Senator Neal: Please repeat the sentence before that last one.

The Witness: Yes, Senator. To my personal knowledge The Texas Pipe Line Company has never refused to accept any oil tendered for transportation, and have solicited business and extended lines to handle said business wherever the volume appeared to be sufficient to justify the extension—

Senator Neal: You said something about the major companies?

The witness: And also, to my personal knowledge we have never been tendered any oil—I had here, by the so-called independent producers for shipment, except into local refineries in the area in which they were located. I mean we have never been tendered any oil for export across the State by them.

Senator Martin: May I ask a question?

Senator Woodul: I think the witness should be allowed to finish his statement first, before anyone questions him; then that I should have the right to question him, and then anyone else who may desire.

Senator Martin: I just wanted to know if he wrote that statement, or whether somebody, or some third party wrote it?

The Witness: I wrote the article myself.

Senator Woodul: He is giving it as sworn testimony.

Senator Rawlings: If the witness is reading from a prepared statement, could he not furnish us with copies of it, and thus save the time of reading it to us?

The Witness: I am reading from certain notes in a statement that I previously prepared, and I am on the last paragraph right now.

Senator Rawlings: Witnesses with long prepared statements I think might furnish the committee copies of their statement, and then answer any questions that members might want to ask.

The Witness: The pipeline system was used exclusively by the Texas Company from 1902 to 1910, inclusive, and from 1911 to 1915 less than one per cent of the total oil delivered was for account of other shippers, and for twenty-eight years the per cent of oil delivered for other shippers was less than ten per cent, and were only made

through certain sections of our pipe line system.

In order that you may better visualize the hazards of pipe line development from 1920 to 1930, inclusive, in order to obtain an increase of 81.4 per cent in our pipe line runs, it was necessary to increase our plant investment in excess of \$22,000,000, or 71 per cent. Pipe line runs as referred to includes the quantity of oil produced by the Texas Company and the amount they purchased from others for movement through our pipe line system.

Just one moment. As further evidence of depletion of the fields, from 1920 to 1930—all-year period—the fields in which we were operating in 1920, and also were receiving oil from in 1930, had decreased 67 per cent, and in some districts, such as the Burkburnett and Breckenridge fields, we had a 95 per cent decrease. In the Burkburnett field we have over 71 miles of gathering line today.

Questions by Senator Woodul.

Q. A few questions and I am through. As I understand you, your figures are all prepared in accordance with the rules prescribed by the Interstate Commerce Commission?

A. Yes, sir.

Q. In the figures you have for invested capital, how is that figure set up—on actual cost, or on what basis?

A. It is set up on the actual cost, less trade or cash discount, plus freight from point or origin to destination.

Q. That means actual cost?

A. Yes, sir.

Q. Now, in the matter of depreciation, are your depreciation accounts governed by the rules of the Interstate Commerce Commission?

A. Our depreciation rates were established and approved by the Natural Resource Division of the Internal Revenue Department of the United States Government.

Q. There is some testimony here, or a statement was read into the record, that the Texas Company earned a 40 per cent dividend on the investment in 1930. What were the earnings of the Texas Company on their capital invested in 1930?

A. Eighteen per cent.

Q. Eighteen per cent. I believe you testified that that is the outstanding showing of the Texas Company in

an eleven-year period; is that correct?

A. Yes, sir.

Q. Now, what dividend did the Texas Company declare in 1930—for the year 1930?

A. The Texas Pipe Line Company, it should be.

Q. Yes, I mean Texas Pipe Line Company.

A. The Texas Pipe Line Company declared a dividend in 1930 of \$23,300,000.

Q. Twenty-three million, how much?

A. \$23,300,000.

Q. Now, what per cent dividend was that on the capital stock of the company?

A. Well, on the capital stock of the Company, it would be a little better than forty per cent.

Q. Let me ask you a question. Forty per cent, now how much was that on the invested capital?

A. It would be a little over forty per cent on the capitalization, and approximately forty per cent on the invested capital, on the pipe line investment only.

Q. What is your capital stock?

A. \$50,000,000.

Q. Based on your invested capital?

A. Pipe line alone is \$54,400,000.

Q. In other words, you are one of those companies that the funds that you have are largely carried by your capital investment, capital stock?

A. Yes, sir. We have other investments but for the purpose of earning, which I am quoting here,—I am quoting only on pipe line investment.

Q. Now, then, state where that dividend came from since you didn't get that 18 per cent earning on your capital investment?

A. Of the \$23,300,000 dollars dividend declared, \$13,673,598 was declared out of surplus.

Q. Did the Texas Pipe Line make any dividend for the year 1929?

A. No, sir.

Q. What sort of dividend did they pay to the stockholders for 1928?

A. Five million dollars.

Q. Now, what is the situation with the earnings of the other companies, if you have made any study of it,—the other pipe line companies operating in this State? It has been stated here in the record, but not testified to by anybody that some of them have declared enormous stock dividends. What is the situation as to that, and

if there is any fallacy in that statement that they made any such earnings please explain it?

A. Well, the figures that I have quoted,—that have been here quoted, I don't know from what source they originated, and of course unless I knew the source it would be hard to state anything about the figures.

Senator Pollard: Do you mind me stating the source?

A. I would be very glad to.

Senator Pollard: In a bulletin furnished by the Interstate Commerce Commission showing the profits as estimated by the Interstate Commerce Commission?

A. Senator, may I ask this, do you know whether they made any calculations to show them, or whether it is a fact they merely rendered the report showing dividends declared without showing the source and somebody else made the computations?

Senator Pollard: That is all I know about it.

Q. I think what it is, it is a report that all of them made to the Interstate Commerce Commission showing the dividends declared. Now then, that dividend is declared on the capital stock, is it not?

A. Yes, sir.

Q. For instance, the Gulf Company, the testimony yesterday was that they had three and a half million capital stock and some fifty four million or about sixty million this year,—fifty-four million three hundred thirty-five thousand dollars last year, it would show a very large percentage on the capital stock but would not be such an awfully large percentage on the actual investment. That is true, is it not?

A. Yes.

Q. In other words, figures given in a matter are sometimes misleading?

A. Yes, sir.

Q. And not correct?

A. Yes, sir.

Q. Your average return on the investment is fourteen per cent, I believe you stated?

A. Fourteen and four-fifths per cent.

Q. Has your company ever refused to handle oil tendered to it for transportation?

A. No, sir, on the contrary, we solicit it.

Q. I believe that is all.

Questions by Senator Pollard.

Q. What was your original capital stock of the Texas Pipeline Company of Texas?

A. Fourteen million dollars.

Q. How much assets do they have at this time?

A. At this time?

Q. Yes.

A. Fifty — — —

Q. (Interrupting) fourteen and a half million?

A. That is the investment. They have other assets outside of that.

Q. How much?

A. Approximately sixty million dollars.

Q. Have you ever levied a stock assessment?

A. No.

Q. Then the difference between fourteen and a half million capital stock and sixty million is about three hundred percent undeclared dividends, isn't it?

A. No, sir, we increased our capitalization twice.

Q. How did you do it, did you do that by declaring stock dividends?

A. No, sir.

Q. How?

A. By the Texas Corporation purchasing the stock.

Q. Did they pay money into the company?

A. They paid cash.

Q. How much?

A. Cash and bonds.

Q. What kind of bonds?

A. We took over some bonds one time in part payment of a debt. They made payments on money due on stock. It was six million dollars at one time — — —

Q. (Interrupting) Was that cash?

A. Yes.

Q. Paid into the company?

A. Yes.

Q. All right, go ahead.

A. And thirty million another time.

Q. How was that paid in,—when was the six million taken in?

A. That was in 1926, I believe.

Q. That was paid by money subscribed by whom?

A. I think at that time, if I remember correctly, the Texas Company owned the pipe line.

Q. The Texas Company itself took this money that it earned out of the

Pipe Line Company and reinvested it in the pipe line?

A. No. They paid into the Pipe Line Company six million dollars and purchased stock.

Q. How much did the Pipe Line Company pay the Texas Company in dividends that year?

A. In 1926,—I don't have the figures here. I can give you 1927. That is as far back as I have here.

Q. How much in 1927?

A. Two million, eight hundred thousand dollars.

Q. You don't know whether they paid six million in 1926 or two million or what?

A. The reports on file here would show that.

Q. When did they pay in any other capital?

A. During the year 1930.

Q. How much?

A. It would be thirty million dollars.

Q. Was that money?

A. No, sir, it wasn't all cash.

Q. How was it paid?

A. My recollection is it was about fourteen,—No, sir,—about fifteen million cash and I think about fifteen million dollars worth of bonds.

Q. What kind of bonds?

A. Well, mortgage bonds throughout the country.

Q. You say the Texas Company owed the pipe line company fifteen million dollars and paid it with bonds they held against other people?

A. No, sir.

Q. Do you mean the Texas Pipe-line Company took — — —

A. (Interrupting) Took these bonds in for cash and collected for them?

Q. In 1930?

A. Yes.

Q. How much dividend did you pay in 1930?

A. Twenty-three million dollars.

Q. Twenty-three million dollars?

A. Yes.

Q. That went to the Texas Company?

A. The Texas Corporation.

Q. And then turned around and put back fifteen million dollars of that and let them have fifteen million dollars in bonds?

A. Yes.

Q. Now, you are in favor of a very strong ratable taking law, are you not?

A. Yes.

Q. And a very strong proration law?

A. Well, proration, Senator, that is in the producing end. I wouldn't want to pass on that. I don't know anything about it. Our company is in favor of it but I am not qualified on anything in the producing end and would rather not pass on it.

Q. Now, if I owned a well and tendered you oil to ship and I haven't got that oil sold, you can't take it, can you?

A. No, sir, we can't take it unless we have a destination for it.

Q. If I consign that from Henderson, from Rusk County down to Houston, and ship it myself, would you take it?

A. Yes, sir.

Q. What would you do with it when you got it down there and I wasn't at home?

A. If you had any place to deliver it down there, we would.

Q. The Texas Company would not buy it, would they?

A. They are buying it.

Q. Suppose it didn't want to buy it, what would you do?

A. Well if they didn't want to buy it and you couldn't give us any disposition of the oil, of course, naturally we couldn't take it in our lines and hold it there.

Q. In soliciting business, you make connections to all wells in the field to which you operate, provided they let you haul the oil?

A. We have in all fields except in East Texas. When we got our trunk line into East Texas there were thirty some carriers by pipe lines operating in there and rather than lay in a dual system of gathering we agreed for them to gather the oil from the wells and tender it over our trunk line system.

Q. Did you know that about the date the Governor issued his call to the Legislature there were one hundred and eighty unconnected wells in the East Texas field?

A. No, sir, I didn't. I heard that statement made here but I have no personal knowledge of that. I do know this, that there were some unconnected wells up in what is known as the Gladewater area, and I do know that we had some request to connect, but Kilgore was as far east as our line extended, and we subsequently built our line from

Kilgore up to what we term our Monroe Station, out in the Glade-water area, and as soon as that station was ready to receive the oil we started constructing the gathering lines.

Q. You naturally realize you can not operate and build your pipe lines unless you are a common carrier and have the right of eminent domain?

A. Yes.

Q. You stated this morning that you were operating a line through Louisiana to Texas, didn't you?

A. Yes, sir.

Q. For what purpose is that being done?

A. Louisiana to Texas?

Q. Yes.

A. To bring oil from Louisiana.

Q. I thought you were hauling oil from East Texas, through Louisiana, down to Beaumont.

A. No, sir.

Q. I beg your pardon then.

A. No, sir. Our line from East Texas begins at Monroe and extends down through Kilgore, then down to Reed, right near Reed Switch and over to the Joyner area, and then down to Douglass where it comes into what is known as our Corsicana-St. Augustine line.

Q. I believe that you think that the law providing railroad rates shall be reasonable should apply to pipe lines, do you not?

A. I think rates should be reasonable, yes, sir.

Q. You wouldn't object to a pipe line bill being passed at this time that provided for ratable taking, providing for reasonable rates to be charged for transporting oil?

A. I believe you have that now, haven't you?

Q. Yes, but it has not been enforced. Do you know why it has not been enforced?

A. No, sir. I would like to make one statement, if you will permit me. Let me get my notes.

Q. Sure.

A. During a period from March 1st, 1927, to date, we have voluntarily reduced one hundred and twenty-two individual rates, both gathering and trunk.

Q. The Texas Company has?

A. The Texas Pipe Line Company.

Q. I think that is rather commendable.

A. I would like to qualify that a little further, if I may.

Q. All right.

A. In February of this year the purchasers in the Wichita Falls area were paying so much for the oil delivered at the refinery. We had rates from some certain areas into Wichita Falls of seventeen and a half cents, and rates as well as other carriers from other pools in there at twelve and a half cents. The producers came to us and told us they were being penalized five cents a barrel on account of the tariff rate. We voluntarily and immediately put in a reduction of five cents so that those in the Holliday-Wilson area were those from the Electra area—

Q. (Interrupting) You mean you in long hauls charged the same rate you did in short hauls so they could all compete?

A. Yes.

Q. Then it is possible for your company to charge the same rate regardless of distance you haul oil?

A. But right in that particular area we made an exception and reduced our rate.

Q. Now you are in favor of the Woodward bill, are you not?

A. I have never read the Woodward bill, but what I understand of that bill from hearsay, I would be in favor of it.

Q. You are in favor of that provision which provides that a receiver may be appointed in the event a producer violates the law, or the rules of the regulation committees, presumably violates a proration order?

A. I never heard that feature discussed, I am not familiar with it.

Senator Woodward: In order to get you straight, Senator, and for your information, the bill does not provide that. It does provide for a receiver only after the court of last resort has acted on the matter and then the producer continues to violate the law.

Q. (By Senator Pollard.) Are you in favor of that bill?

Senator Gainer: I rise to a point of privilege. I would like for the Senator to ask the gentleman if he has read Senate Bill No. 5, by my distinguished self.

A. No, sir.

Q. (By Senator Pollard.) Have you read that bill?

A. No, sir, I have not read any bill, and I have such vague knowledge of either bill that any opinion that I would render would have no value at all.

Q. Granting that it says to have a receiver appointed for a producer who violates an order, after the courts have held such order valid, don't you think it would be proper to have a provision that if a pipe line company refused to take ratably in violation of that order, or the law which says it shall take ratably, it should have a receiver appointed to take charge of it?

A. At the present time, so far as the Texas Company is concerned, we have not refused,—

Q. I am not talking about your own company, I mean some company that did that?

A. I think it would be all right.

Q. Well, I intend to have that in my Pipe Line Bill which I am now preparing.

Senator Woodul: Yes, sir, after the court has determined that this company is violating the law and it won't obey, then it ought to be put into a receivership. I am with you on that, they ought to be done away with, if they don't obey the orders of the court.

Q. And this bill will also provide that a failure to abide by this order, that the permit of that company will be immediately canceled, that would also be a good provision?

A. There would be no objection from our company's standpoint.

Q. And provided that the assets of the company be impounded and that if there is an offset well, and that the purchaser refuses to take the oil from that well, that the producer shall have the cause of action over against the pipeline company that refuses to take ratably from his well?

A. I don't see how a pipe line could drain a well because we receive the oil out of settling tanks.

Q. Well, it comes out of the well to that little tank, doesn't it?

A. Yes, sir, but we have never knowingly accepted any oil at any time for running into the line that was out of proration.

Q. I am not talking about proration. I am talking about ratable takings. Suppose your pipe line takes three thousand barrels of oil a day out of A's well, and B's well is

three hundred feet way, and you refuse to take any oil out of his well, don't you think you should be liable for drainage if B's well cannot be connected to any other pipe line and cannot dispose of his oil?

A. Well, somebody might be, I would not necessarily say it would be our company.

Q. You get my idea, I know that does not apply to your company. There are pipeline companies transporting oil in certain sections of the State, I understand they have not accounted for the price of this oil for six months. This bill I am advocating will contain a provision that oil transported to a pipe line for any given month shall be due and payable by the purchaser or pipeline company on or before the fifteenth of the next month. That is, every month run will be due and payable in fifteen days, and provides further that in the event there is a controversy as to the title to the land that the amount of royalty or the amount of oil payment due shall be deposited with the registrar of the court in which the contest of title is standing, does that appeal to you as being fair?

A. Well, Senator, the Texas Pipe Line Company neither purchases or sells oil. We are strictly a carrier. Any oil we receive we are required to account for it in quantities and not in value, and speaking of it from the point you are trying to bring out, and not from a pipe line standpoint, but from an oil producing standpoint, I think any oil purchasing company would be very glad to be able to make their settlements within the end of fifteen days of the month because they are primarily interested in establishing their cost, but in order to do that the purchaser will have to furnish an abstract, so the purchasing company can determine the ownership. Now, if the purchaser is negligent and fails to produce an abstract, certainly no company could be held accountable for not making settlement.

Q. You do not subscribe to the theory that the purchaser can delay payment on some slight pretext of defect in the title?

A. I have known of cases where the Texas Company, where they have had defects in title and they have required the purchaser to put up a

bond in order that they might receive the funds.

Q. This bill that I advocate will further provide that if the company refuses to pay they shall be penalized or be required to pay interest at the rate of one per cent per month, on the past due royalty payments, and a reasonable attorney's fee in case suit is brought. Would that hamper the law itself?

A. I don't see where it would hamper the law, but I don't think the whole burden should fall on the purchaser if they could show the producer has been negligent in furnishing the abstract.

Q. I suppose we could take care of that.

A. I will say this that from the contact I have had with the major pipeline companies, and I have had contact with most of them in this country, they are the same as the Texas Company, or the Texas Pipe Line Company; they are very anxious to have these matters to eliminate the expense as soon as possible and I don't think any company delays those things indefinitely unless they have a sufficient reason to justify them in doing so.

Q. I don't think so, either, in fact I have heard no criticism of your Company in East Texas in the pipe line business so far.

A. When we entered into East Texas we worked night and day getting in that line and devoted our entire attention and effort to the main trunk line.

The Chair: Is that all. That is all, Mr. McLaughlin. I want to express to you the appreciation of the Committee for your presence here.

Mr. Goldston is the next witness.

Mr. W. L. Goldston, Jr., having been duly sworn by the Chairman, testified as follows:

Mr. Goldston, will you give the reporter your name and address and the company you represent?

A. My name is W. L. Goldston, Jr. I represent the Cranfill Reynolds Company of Houston.

The Chair: All right, Senator Pollard, Mr. Goldston is your witness.

Questions by Senator Pollard.

Q. It was my understanding that Mr. Goldston would give his idea of the East Texas geological condition. Just let him make a general statement, if he wants to see those charts

we would be glad to have him look over them.

Q. (By Senator Woodward.) In what manner do you represent that concern, what is your official connection?

A. Chief geologist.

Q. (By Senator Pollard.) I would like to ask Mr. Goldston where he received his training and how long he has been a geologist?

A. I graduated from the University of South Carolina in geology in 1916. In the summer of the same year I became connected with the Empire Gas and Fuel Company of Bartletttsville, Oklahoma. I worked for that company during a part of 1916 and part of 1917. I also worked for that company during a part of 1919 and 1920 as field geologist. During 1921 and 1922 and part of 1923, I was consulting geologist in Bartletttsville, Oklahoma, and was associated with Mr. Alex W. McCoy. During 1924, part of 1924 and 1925, I was with the Texas Unity Oil Company located at Dallas, Texas, as chief geologist. In the fall of 1926 I became chief geologist for the Cranfill Reynolds Company and have held that position since that time.

Q. Have you ever seen these charts before?

A. I saw them this morning. I do not have any prepared statement to make.

Questions by Senator Rawlings.

Q. Were you present in the Senate Chamber when Mr. Foran explained these exhibits, including exhibit F now before you?

A. No. I was not.

Q. And are you acquainted with Mr. Foran?

A. Yes, sir, I know Mr. Foran.

Q. Are you familiar with the East Texas oil field?

A. Yes, sir.

Q. I will ask you if you were here this morning when some testimony was offered concerning exhibit B, I believe it was, which was supposed to show a cross section of the East Texas oil field showing the water on the west side and the oil on the East side of the pool?

A. Yes, sir, I was here at that time.

Q. Are you familiar enough with the Texas structure to tell us whether or not that fairly represents the East Texas pool?

A. In a very general way, it does. I agree with Mr. Belt, that the sand

condition as found in the East Texas field was not properly depicted on this diagram.

Q. So that we may be a little definite about that I will turn back to this other chart.

Q. You have now before you Exhibit A, one of the charts about which Mr. Foran testified. As I understand it, that represents a cross-section of the East Texas pool. We will say well No. 4 there is about the location of the Joiner well on the east side of the pool, and well No. 1 is beyond the oil strata on the west. Now, do you say that is not correct?

A. The relation with regard to water and oil is correctly shown there. Water is on the west side of the oil.

Q. Well, what is there about that illustration that you say is incorrect?

A. As I understood the interpretation of this diagram this morning, the black and blue color here represented solid sand. Now, in actual drilling in the East Texas field the Woodbine formation—I prefer to call it "formation" instead of "sand"—the Woodbine formation is two or three hundred feet thick in places. Over on the east end it is only a few feet, but it consists of sand and shale.

Q. What difference would that make as far as the principle illustrated by this chart is concerned?

A. It would make no difference in respect to the relation of water to the oil, if that was what this chart is intended to show.

Q. Well, you understand, Mr. Goldston, the thing we are trying to find out here as members of the Legislature is how to deal with this oil field or all the oil fields of Texas to the end that the greatest ultimate recovery may be had of the oil and to eliminate wasteful practices in the development of oil. Now, then, that Exhibit A is supposed to represent roughly the structure in East Texas, shows water coming in from the west and crowding the oil to the east.

A. I think that is correct. In relation to water, that diagram is correct, yes, sir.

Q. There might be some difference between you and Mr. Foran as to the composition of the sand?

A. Yes, that is right.

Q. But that would make no difference with reference to the principle we are dealing with here, would it?

A. It might.

Q. Well, do you subscribe to this principle that, we will say well No. 3 illustrated on Exhibit A could be produced in such a manner that the water would come and cut off oil in pockets?

A. If well No. 3 is drilled—if the bottom of the hole of No. 3 is within ten to twenty feet of the top of the water table, if the well is opened up wide open, sooner or later it will show some water.

Q. Well, do you subscribe to the proposition that if it is permitted to run too rapidly and not produced in an orderly manner the water might come at the bottom of the well and cut off oil and leave a deposit?

A. No, the well would produce, but would produce both oil and water.

Q. You saw the larger illustration, about the spots?

A. Yes, sir.

Q. Were you here when Mr. Foran testified that those black spots on the other diagram represented oil that had been trapped?

A. No, I was not here at that time.

Q. Do you subscribe to that theory as a geologist?

A. I don't think the oil would be trapped in that manner.

Q. You don't think the water could pass by and oil be there in that way?

A. No, sir; that is not true, I don't think, in the East Texas oil fields. There is enough water pressure, as Mr. Belt said this morning, to flush that oil out.

Q. Well, do you say there is such a thing as underground waste?

A. I don't think so, in the East Texas fields.

Q. Well, in any oil field in Texas?

A. There may be in some oil fields, yes, sir.

Q. Well, what do you say underground waste is?

A. Underground waste is oil left in the ground that can not be recovered.

Q. Well, I don't know that I understand that exactly. When you develop a pool there may be a lot of oil that we may not recover, but after you develop an area like East Texas what do you consider underground waste?

A. I don't think there will be any underground waste in that pool. With the hydrostatic head that they have in that woodbine sand, even though the wells were drilled to water and operated improperly, I don't think there will be any under-

ground waste as a whole. You are going to lose some oil out of this particular well; that is, if that well is drilled into water or near water you will not produce as much oil as if drilled to proper depth, but your oil will be recovered in another hole; there will be no oil left in that pool.

Q. You don't think there is any such thing as underground waste there?

A. No, sir, I don't.

Q. Why do you say there would not be, but there may be in another field?

A. There are some fields in Texas where there is no hydrostatic water pressure. The only pressure they have in the field I have in mind is the volumetric pressure; it produces all gas. When the gas is all removed from the sand in that particular field there is the question of repressuring it. There is underground waste in that, unless it is repressured. Of course, the oil is there and can be obtained this year or ten years from now by repressuring.

Q. Do you think there is any condition in any of the fields now, particularly East Texas, a condition of waste that should be corrected by the Legislature or the rules of the Railroad Commission?

A. I don't know of any law other than what we already have that would regulate waste in East Texas.

Q. Well, are you a lawyer?

A. No, sir, I am not.

Q. Well, what I am trying to find out is about the conditions and not your opinion of the law. Do you know of any condition of waste in any field today that ought to be corrected?

A. There have been a few wells drilled in the East Texas field that were drilled too deep. The bottoms of those wells should be cemented.

Q. Why?

A. As I understand it, we have a law that the Railroad Commission now is empowered with authority to have those wells cemented.

Q. Why should they be cemented?

A. As I mentioned a while ago, each well that is drilled too deep, water coming in there will diminish the ultimate recovery that the well will produce. A well three hundred feet from it across the fence, the water will come into that well, and

that group of wells will—the ultimate recovery from that group will be diminished; but taking the field as a whole, the oil will be recovered in some other well. There is an injustice done to the man that happens to own royalty under that particular well.

Q. You are looking at it from the rights of the individual and not from the standpoint of the conservation of oil?

A. From the standpoint of conservation of oil, it does not make any difference whether you get it out of one well or another. This oil in East Texas will be recovered ultimately without any underground waste.

Q. Well, now, Mr. Goldston, you say some wells have been drilled too deep, and that probably should be corrected. Do you know of any other wasteful methods practiced there that should be stopped?

A. No, sir, I don't.

Q. Outside of drilling some wells too deep, you don't know of any other condition that ought to be stopped?

A. No, sir, I don't.

Q. What about gas energy?

A. There is only one kind of gas in that East Texas field; that is what we call gas in solution; there is no free gas in the East Texas field. Now, this gas in solution is—more of it is near the top of the body of this oil; it has greater saturation near the top here than at the base. You can open up a well and produce a thousand barrels a day, and a number of experiments have been made over there. The oil-gas ratio there will be approximately three hundred cubic feet of gas for each barrel of oil taken out; then you can open that same well up to ten thousand barrels a day, but your gas-oil ratio will remain the same. The reason is that your gas is in solution. The only way to get the gas out is to take the oil out, and the ratio remains practically the same. Now, that statement is not absolutely true.

Q. Well, do you say there is no way of regulating the gas-oil ratio there?

A. The experience in East Texas from the information I have been able to gather—I have not made the experiments myself, but your best gas-oil ratio is when you are pro-

ducing three to four thousand barrels a day out of one well; then your gas-oil ratio is 150 cubic feet of gas to each barrel of oil. As you reduce that production to three or four hundred your oil-gas ratio increases to about three hundred cubic feet for each barrel of oil, and you can raise your production to twenty thousand barrels per day and your ratio will not exceed three hundred cubic feet per barrel of oil.

Q. Your explanation is that a well pinched down to two or three hundred barrels per day might use more gas energy than one permitted to run at the rate of—(question interrupted.)

A. Yes, if it is gas you are trying to save you had better let those wells produce three to four thousand barrels a day.

Q. Mr. Goldston, can you tell us in every-day language so we can understand it by what method the drilling of oil wells and the flow of oil should be regulated so as to do justice to each property owner and promote the ultimate recovery of oil from that field? Here is what I mean: Could the Railroad Commission or Conservation Commission promote in that area a rule with reference to the pool as a whole outlining a method for the operation of these wells, or would it have to deal with each well as a separate problem?

A. It would have to deal with each well as a separate problem. Every well is different.

Q. Every well is different?

A. Yes, sir.

Q. One well might be permitted to run seventy-five per cent of its potential without doing any damage to anyone else, and another well might run an even larger amount than that, and another might run a smaller amount?

A. Each well is different. If it is gas you are trying to conserve I see no reason for not producing the well wide-open, if you have the market for your oil.

Q. Do you think a ten thousand barrel well could be thrown wide-open and let the gas go up in the air, without creating any waste?

A. If you are producing a well at 10,000 barrels a day you are producing ten times as much gas as when you are producing a well at

1,000 barrels a day. It is a question as to whether you want to waste all that gas and let it go into the air in one day, or take ten days to let it do that.

Q. You think that has no relation to the ultimate recovery of all the oil in the pool?

A. None whatever.

Q. Say that pool has fifty thousand barrels of oil in it. Now, you could open that up and let it run ten days, or thirty days, but ultimately the same amount of oil would be recovered regardless of the rate it would be allowed to flow?

A. In the East Texas field that is true, in my opinion, because you have hydrostatic pressure, which is the greater of the two forces which is bringing the oil out.

Q. This proration of individual wells, then, as I understand it, has no relation to conservation of resources, then?

A. In the East Texas field, it has not.

Q. Do you know of any other wasteful practices existing in the East Texas field?

A. Your biggest hazard over there is water, and that hazard will occur to individual operators and individual royalty owners, but take the field as a whole, the ultimate recovery will be obtained.

Q. What could be done to safeguard against the water hazard you refer to?

A. I don't think any of those wells—that the bottom of the holes should be drilled down to the top of the water table.

Q. You think the Railroad Commission should provide the depth of the wells?

A. Yes, sir.

Q. Has the thickness of the sand been so definitely decided, that you can stand on top of the ground and arbitrarily fix the depth that a well should be drilled?

A. I think at this time you can come within 25 or 30 feet of it. You know each time where you hit the top of the sand. The present water table has been established.

Q. From your knowledge of East Texas, all you would do at this time and all you think is necessary to be done, is for the Railroad Commission to enter an order prescribing the depth these wells should be drilled to prevent a water hazard?

A. Yes, sir; I think that should be done.

Questions by Senator Pollard.

Q. Then you don't believe if you turn a well loose making five or ten thousand barrels, it will be a water hazard?

A. It depends on where that well is located. If located on the west side of the field, or in the center of the field, and the bottom of the hole is within twenty feet of the top of the water table, I would say it would create a water hazard.

Q. Wouldn't that same condition exist in any other oil field in the edge of the pool?

A. Yes, sir; that same condition would exist in any other pool, if it has hydrostatic pressure behind it.

Q. Then, it would exist in the Van pool, wouldn't it?

A. Yes, sir.

Q. And in the Powell pool?

A. Yes, sir.

Q. And in the Luling pool?

A. Same condition in the Luling pool.

Q. Same condition in the Winkler pool, wouldn't it?

A. Luling and Winkler, both, are producing from the limestone, and conditions are a little bit different than in the Woodbine formation, but the same general principle is there.

Q. How much gas did it take to lift a barrel of oil in the Van pool?

A. 280 to 350 cubic feet per barrel of oil, I understand.

Q. How much did it take in the Big Lake area?

A. At the present time, I think about 5000 cubic feet of gas per barrel of oil.

Q. That gas is now escaping, is it not?

A. Either escaping, or they are burning it.

Q. In either event it serves no purpose but lifting the oil?

A. That is all.

Q. Is there any way of reducing that amount?

A. I think there is.

Q. How would you do it?

A. Put a smaller choke on your well.

Q. Would that get more or less oil?

A. Less oil.

Q. Then there would be less waste?

A. Less gas waste. In the Big Lake field you have a free gas and gas in solution. Where you have free gas you can control your gas-oil ratio by the choke on your well.

Q. How long do you think the presence of gas in quantities now present in East Texas for the lifting of oil will be continued?

A. I think at the present time there are eighty to a hundred wells in the Joiner area, which is on the east side of the Woodbine formation, that have quit flowing because of not enough gas to cause them to flow. I mentioned a while ago that your gas in solution is concentrated along the top layer of that oil. When you remove that top layer of concentration, you remove your more saturated oil, and when that is removed, your oil will stop flowing, because not enough gas is left to flow it.

Q. In East Texas today is there such an indication of gas that you could induce a pipe line that is now running through the field to connect up with the fields, in order to obtain commercial gas?

A. I don't think you could, because experience in the Joiner area has proven that that gas is nearly all gone over a period of six months where your wells are turned loose.

Q. Now, is there enough gas escaping, or enough gas underground to justify the building of casinghead plants, and pipe line gathering lines for that?

A. I think there probably is. I think when the price of gasoline increases, some casinghead plants will be built. Your quantity of gas is going to decrease, but your percentage of gasoline in that gas is going to increase with the decrease of volume, and when gasoline gets to selling at five or six cents a gallon to the wholesaler, they will be justified in spending sufficient money to take gasoline out of that gas.

Q. But at the present time, it would be an economic loss?

A. At the present time they could not make any money on it.

Q. In order to prevent waste of gasoline that is escaping in that gas, in the name of conservation, would you recommend that the Railroad Commission be given authority to shut down that entire oil field until there would be an economic demand or price for gasoline suf-

ficient to justify the establishment of casinghead plants?

A. No, sir; I would not recommend it at this time.

Q. Do any of the leading geologists or petroleum engineers of the country recommend such action, so far as you know?

A. So far as I know, they do not. I have not heard them say.

Q. Has it ever been advocated in the history of the oil business?

A. I never heard of it.

Q. Then, what waste exists at this time in the East Texas field that can be prevented by the Railroad Commission, that can be economically administered?

A. The only way is putting back this gas that is escaping from the separators. The Railroad Commission could force operators to put that gas back in the sand. In order for an operator to do that, the operator would have to have a compressor plant. I think the figures at Sugarland show where the Humble Oil & Refining Company is putting gas back into the sand, it costs them fifteen cents a thousand for each thousand feet of gas put back in that sand. With the East Texas field cut up in small tracts and divided as it is, that idea is impractical over there.

Q. How much is gas worth now, selling for on the market?

A. In the East Texas area the gas companies pay three cents for it at the well.

Q. That is where the wells are large gas wells and not small gas wells?

A. Yes. They only connect to commercial gas wells.

Q. That is the wells in the Panola County area?

A. Making three million feet a day or better.

Q. How many feet of gas is this Chapman Well over in Panola County that has been running wild for about six weeks, how much is it making?

A. All I know about that is what I have read in the papers. The papers indicate something like twenty-five or thirty million feet of gas a day.

Q. Now, these wild wells averaging from three to twenty-five million feet a day, you could not get any gas company to take on any of these gas wells in the East Texas fields, could you?

A. No, sir. The East Texas field

is producing from thirteen hundred wells about one hundred and fifty million feet of gas.

Q. Over one hundred and twenty thousand acres?

A. About one hundred thousand acres.

Q. You could get that much gas from ten wells over in the other counties, couldn't you?

A. Yes, sir.

Q. And as a practical proposition nobody would connect up if they shut in these wells to take this gas for commercial purposes?

A. I don't think you could get anybody to go in there at the present price for gas unless you could assure them that they had a supply over a period of twenty or thirty years. From the data we have at present we are not sure of it being there more than six months.

Q. Do you understand that shutting in small wells constitute waste?

A. No, sir, I do not.

Q. Why not?

A. Because you can open them up at a later period and get the oil.

Q. The shutting in of a well will not destroy the oil well?

A. In most cases it will not.

Q. Can you state why it is that certain geologists insist there is so much waste in the East Texas oil field with a barrel of oil being lifted by two hundred and sixty to three hundred cubic feet of gas, when there would be no waste in the Big Lake area where it takes five thousand cubic feet of gas to lift the same barrel of oil?

A. I do not understand that point of view.

Q. Is that point of view concurred in generally by geologists, or just a few in particular?

A. As far as I know, very few.

Q. Had you ever heard it advocated prior to the meeting of this session of the Legislature?

A. The proper oil-gas ratio advocated lots of time—

Q. (Interrupting) Did you ever hear that?

A. We never heard of it at Mexia or Powell.

Q. You didn't understand. Did you ever hear prior to the convening of this Legislature that it was waste for gas in East Texas to escape in the gas-oil ratio of 260 to 300 cubic feet per barrel for oil being lifted, and that there was no

waste in the Big Lake area, where it took five thousand cubic feet to lift the same barrel of oil?

A. No, sir, I never heard that statement before this session of the Legislature.

Q. Are there any great water hazards in the East Texas field, at this time, any greater than there existed in any other newly discovered field with hydrostatic pressure?

A. No, sir, I think not.

Q. That is all.

The Chairman: Any other questions? Any other member of the committee wish to ask him any question? If not, the witness will be excused with the thanks of the committee.

(Witness excused.)

(Thereupon, Mr. E. A. Landreth was called and sworn by the Chairman.)

The Chairman: Mr. Landreth, give the reporter your name, post office address and your connections.

A. E. A. Landreth, Petroleum Building, Fort Worth, Texas. I am president of the Landreth Production Corporation, a Texas corporation. We are independent oil producers.

Senator Woodward: I would like to ask Mr. Landreth a question or two to get started.

The Chairman: Proceed.

Questions by Senator Woodward.

Q. Mr. Landreth, are you in any way connected with the Humble Oil Company?

A. No.

Q. Are you connected with any of the major companies in the sense of being an officer, director, or official of any kind?

A. I am not connected with any oil company at all with the exception of the Landreth Production Corporation.

Q. Are you a member of what is known as this Central Proration Committee,—is that the official name?

A. I am chairman of the West Texas division under that Central Proration Committee, but not a member of the Committee itself.

Q. The membership of that committee is composed of how many people?

A. It is supposed to be composed of six people.

Q. And who are they?

A. The six people are two chosen from the Mid-Continent Oil and Gas Association, two of the Independent Petroleum Association of Texas, and two of the major pipeline companies.

Q. Now, the personnel?

A. The personnel of that is Mr. Charles Roeser, of Fort Worth, Texas; Mr. Robert Penn is chairman of that organization; Mr. Richard Morrison, of the California Company; Mr. John Suman of the Humble Oil and Refining Company; Mr. A. M. Donoghue, of the Texas Company; and Mr. George Calvert of Fort Worth, of the Independent Petroleum Association.

Q. Mr. Landreth, if you can, without taking too much time, I wish you would tell briefly, as briefly as possible, tell the committee the different organizations which are involved in or taking an active part in this oil situation, and to make clear what I want, we refer to certain companies as major companies and we refer to certain companies as independent companies. My understanding is that among the majors there is a different school of thought, and among the independents there are various schools of thought, and in short I want you to tell, if you will, who are these different groups that we are hearing about?

A. I will say this, that the major group of oil companies are in Texas, I will begin with the Humble Company which is the largest producer in Texas, and the Gulf Production Company, The Texas Company, the Magnolia, the Sinclair, and the Stanolind and they are what we term the major oil companies.

Q. Right there. Among those groups of what we call the so-called majors, is there a division of opinion and different schools of thought as to how to handle the situation?

A. Yes, sir, there are two differences of opinion among those groups, and as you understand, the Sinclair Oil & Gas Company and the Gulf Production Company are opposite in their views against the majority of the other major companies.

Q. Is it your understanding the Gulf and the Sinclair entertain pretty much the same views, whereas, the other majors you have mentioned entertain a different view and concur with each other?

A. Yes, sir, that is my opinion.

That is what we find here in Austin particularly.

Q. Now then, among the independents, what groups are there among the independents?

A. I might add to that the semi-major companies such companies as the Simms Oil Company, the Phillips Petroleum Company, the Skelly Oil & Gas Company, the Amerada, the Tidal Oil Company. Those are the minor major companies. I am nearly positive that they are all of the same opinion in their thoughts in the matter, their views.

Q. Their idea of the method of solving the question?

A. Yes, sir.

Q. Now then, among the independents, what groups are there?

A. Well, the first instance, the group that I term myself in, I would say seventy-five to eighty per cent of the principal operators in Texas, they are for cooperation and orderly development and they stand for conservation in the strictest measure, and are not only standing for it now but have practically since the inception of proration or conservation in the State of Texas.

Q. Now then, the members of the independent group of which you classify yourself, what in your opinion is the number or percentage who entertain views in accordance with your views, or that you entertain views in accordance with their views?

A. I believe that number would be 80 per cent, Senator.

Q. Now then, what other group differs with your group?

A. I might add that group I speak of, a good many of them are members of Mid-Continent Oil & Gas Association, and we have the Independent Petroleum Association of Texas that was primarily formed as an organization for embargoes on oil or tariff on oil—

Q. (Interrupting.) Who heads that group?

A. Mr. Tom Cranfill of Dallas, the president, and Mr. Claude Weil is the secretary of that organization. That organization is, as I stated, headed by Mr. Cranfill, and as you know Mr. Cranfill's views are absolutely opposite of our views. In other words, Mr. Cranfill,—and in that same organization is Mr. Joe Danciger,—those gentlemen have opposed proration from the time it has started in Texas.

Q. Now then, what percentage of the operators, other than major operators, do you think entertain their views?

A. I think that the percentage of bona fide operators and oil producers, less than twenty per cent.

Q. Now, Mr. Landreth, before you get on your general explanation, I want to ask you a few questions. What has been the extent of your operations in Texas, and when did it begin?

A. My operations in Texas began in 1919, Senator, and I have been very active since that time.

Q. Just state in a general way the extent of your experience as an oil operator, and with oil conditions and affairs?

A. In 1919 I entered the Ranger, Texas, field, and since that time our operations have been carried on in the Breckenridge field, from there to Shackelford County, Texas, the Ibex field, and from there to the Wilbarger field, known as the Waggoner Pasture, then Jones & Fisher Counties, and in 1926 after drilling some several hundred wells in those counties I went into West Texas. Our operations began in Crane County, Texas, and in that field we found our first real competition.

Q. What is the name of that field?

A. The Crane County Pool, known as the Church field. Our company purchased a strip of land and started one well on our property, and that is the property that Mr. Belt of the Gulf Company referred to this morning that the company north of us started a well and then the company, his company in turn, started a well, and we offset those two wells in the middle,—and I would like to make this statement—

Q. (Interrupting.) Before you go into that I want to get your qualifications before the committee. You can get back to that in a minute, if you will. What other fields have you operated in?

A. Our next operations were in the Pecos County fields, from there we drilled some sixteen wells in Crane County, and from there to the Pecos County field and drilled some forty wells, and from there to Ector County. Those operations were conducted over the past two years, and from there to the Humble Pool in Lee County, New Mexico.

Q. What about the Winkler field, or the Yates field?

A. We didn't operate in the Yates Pool. Our property is some few miles from the Yates Pool in the Taylor-Link area, but we did carry on extensive operations in the Winkler field.

Q. Are you familiar with conditions as they were and as they are in the Winkler and Yates fields?

A. Yes, I am very familiar with the conditions in the Winkler County pool, and have very good information on the Yates pool.

Q. Now, about how many wells will you say you have been directly connected with in having drilled for the discovery of oil and gas?

A. Over five hundred.

Q. Have you given your personal attention to the method and manner and the result of that operation?

A. I have given my entire time to the actual drilling and management of all of our producing property.

Q. All right, you may go ahead with such explanation as you care to make.

Q. (By Senator Woodruff.) There is one thing I would like to ask him to state, and that is whether or not the Landreth Corporation has any financial connection directly or indirectly, with any of these so-called major companies?

A. No, sir.

Q. Have you any connection with them at all?

A. None at all, never have had any. Our company has sold several properties to the major interests from time to time but we have never had any financial assistance from any major company.

Q. Who have you sold property to?

A. We sold our first property that we developed in the Breckenridge field in 1922, to the Humble Oil and Refining Company.

Q. And the next sale?

A. The next sale was in 1922 to the Magnolia Petroleum Company. The next sale was in 1924 to the Phillips Petroleum Company. The next sale was in 1926 to the Phillips Petroleum Company. Our next sale was to the Shell Company in Winkler in 1927, and our next sale of our Winkler and Crane properties was to The Texas Company, and in 1928 we sold that. And in 1929 we sold a property to the Simms Oil Company.

Q. (By Senator Woodward.) All right, go ahead with your statement.

A. I would like to make this statement, that on our first property that we operated in Breckenridge, which was known as the Hay lease, we drilled eight wells on an eighty-acre tract in a very short period of time, and in five months time this property had gotten down under a wide open flow to eight hundred barrels per day. It was a large property and the reason why I am bringing that out, I want to show how the method of operating conditions has changed. In other words, if I had known then what I now know we believe that we could have operated those wells under back pressure and they would have been flowing today, whereas when we did sell this property to the Humble Oil & Refining Company in less than five months after that sale the Humble plugged those wells, they were abandoned on account of dissipating their gas and the oil was gone.

In 1921 we drilled a very large gas well south of Breckenridge. It came in making some thirty million feet of gas a day, and after that well had flown wide open some thirty days it started spraying oil and at the end of fifteen days that well was producing thirteen hundred barrels of oil per day of forty-two gravity. Not knowing what we know now about the back pressures of wells, we let that well continue to flow and in less than thirty days that well had gone to water. But, as I stated before, if we had placed back pressure on that well I am sure that the ultimate production from that well probably would have been twenty times what we received from it and it would have been a flowing well today. Our next large extensive operation was done in the Wilbarger field in the Waggoner pasture. We drilled some hundred wells there and sold our property to the Simms Petroleum Company. It was done under an intensive and unorderly campaign. In other words, the Humble Company was our offset producer. We tried to agree with the Humble, and have them space their wells further away from our lines so we could cut down the unnecessary wells and regulate our wells, but we were fortunate in being on top of the structure, and the Humble Company in those days, were like some majors today, they felt that the company that could crowd you and build the

most wells could get the most oil, and under that campaign we were forced to sell out to the Phillips Petroleum Company.

From there we went to the Crane County field and as I started to state, the Gulf Production Company started a well offsetting us to the south, and I had lunch with Mr. Underwood Nazro in the Fort Worth Club, and discussed with him some of the orderly drilling of wells along our property lines. This was just four years ago, and he said I will be very glad to go out in the field and look it over and let you know about it. That night the Gulf Company hauled in four rigs during the night offsetting our company. In a very short length of time, as I stated in a statement to the House the other day, they had forty-eight wells offsetting our property in a zigzag manner, spacing from two hundred feet from our line and only spacing their wells some six hundred feet apart.

The major pipe line companies refused to take our oil. We went to the Gulf Company, we solicited the Humble and they said they were very sorry but they had their own production to take care of and could not give us any relief, although the Southern Crude Oil Company did give us some relief to the extent of a thousand barrels of oil from time to time. Our company was forced to build several million barrels of storage, we had to build our own pipe lines, and just at that time the Winkler County field came in. We went into a contract, into a written agreement with the Southern Crude Oil Company to handle our production in Winkler County, and after that field started, about the time we brought in our first well we asked them to make connection to our property and they, even in the face of a written agreement to take our oil, they said that they were very sorry but their pipe lines were filled taking care of their own requirements. We were again forced to build a pipe line to the railroad and large storage to take care of our oil.

I might refer to this map of the Winkler county pool to show you our situation at the time. This pool here is north and south. Our properties were scattered all through the pool. We tried to work out with the many operators in the field an orderly drilling program. The Railroad

Commission had a hearing, on April the 24th ordered proration in this field, effective May the 5th, to a hundred and fifty thousand barrels per day. That field at that time had built up its production to three hundred and twenty-five thousand barrels a day, and the Railroad Commission after many hearings entered that order, but I contend it is like the East Texas situation now, they entered the order too late. These properties that I have marked in red here represented only about two or three percent of the acreage of that entire field, and those operators where the properties are marked in red were primarily the cause of the uncontrolled condition there. I made the statement that I personally believe that due to the fact that that field was not regulated, that the gas was not controlled and conserved, that field has lost over five hundred million barrels of oil. We worked for months in meetings with these operators but they would not cooperate, and that is the condition the Winkler county field got itself in, and today it is making about twenty five barrels of water to every one barrel of oil. That field is now producing forty thousand barrels a day, and I absolutely know that the lifting cost on that field is seventeen cents a barrel just to handle the water. The reason I know that, one of the partners of one of the large companies, said they billed him at seventeen cents for the oil and they were paying him ten cents and he told them to shut his part of the production in. It will only be a question of a few months until this field will be making so much water that you cannot profitably extract that production and that will necessitate the plugging and abandonment of that field, and in doing so I contend you will waste millions of barrels of oil because it will not be profitable to bring it out; and that was due, gentlemen, to the wide open flow, the dissipation of the gas pressure. Since that field was brought in there have been two or three other major pools in West Texas, and from their inception they started to curtail their production, restricting the gas flow and they are getting perfect operation. I heard Mr. Belt of the Gulf Company tell you that the Yates

pool, which came in about the same time, and he also told you that their recovery up to date was about the same amount of oil in millions of barrels. The Yates pool, gentlemen, can be stepped up to a hundred thousand barrels of oil a day, it is not producing seventy, and practically every engineer that is familiar with that field will tell you it will flow under its own pressure at the rate of a hundred thousand barrels a day for the next five or ten years, and on those figures you can see where the Yates recovery will be from two to three times per acre greater than the Winkler.

Q. Why would that recovery be greater?

A. It would be greater because you are getting it from your limes and sands slowly and your water,— your reservoir pressure is being maintained, your water drive is bringing it out and you will get all of the oil out of those beds, where this oil is being trapped off and water will be in there so that you cannot get it out.

Q. Water or oil?

A. The oil I mean will be trapped off by water and it will be held in the ground, and it will not be profitable to extract it.

Q. (By Senator Woodruff.) How do you know definitely that there is this identical amount of potential in the pools, how do you know definitely that the oil reservoir is not practically exhausted in the Winkler fields?

A. It is getting down to that point, Senator. In other words, it is exhausted on the account of the trapping off of large bodies of oil.

Q. How do you know there is any more oil down there?

A. You know this, that it is coming out with your water and we know this by regulating your back pressure on these wells that it retards the water and in all of our fields in West Texas, that is our experience.

Q. (By Senator Pollard.) Mr. Landreth, is there such a thing as oil ever playing out in a pool?

A. Yes, sir.

Q. When do you know that is happening?

A. Well, when your property is absolutely exhausted.

Q. I do not understand, how can you tell when the water, when the well ceases to make nothing but water, how do you know the oil is exhausted and whether the oil is trapped in?

A. If you have produced those wells under proper back pressure methods and exhausted your oil, —

Senator Woodward: Mr. Chairman, I believe we are departing from what has been the usual custom.

Senator Pollard: I beg your pardon, I thought I asked you if I could ask a question.

Senator Woodward: I suggest we let the witness get through with his examination, and then we will make better time.

A. Proceeding, regarding our Ector county field, that has been producing now over a year, and it has been under proration. We have maintained four hundred and fifty pounds back pressure. We are producing some seventy-five hundred barrels a day from that field and I believe the safety factor is around ten thousand barrels. When I make the statement of the safety factor, I believe that by using the proper oil and gas ratio, we could step it up to ten thousand barrels a day without dissipating the gas energy. If we went over that I think we would be using too much gas to produce the oil. We are having the same result in Lee County, New Mexico. There is being operated very orderly, the spacing of those wells has been one well to forty acres, and the entire field has cooperated from the start. All of the casinghead gasoline both in the Ector County pool and in the Hobbs pools are being utilized by the casinghead plants. Going back to the Winkler county field, gentlemen, this gas was dissipated to such an extent that your casinghead manufacturers did not feel justified to go in there, for this reason: that any field that is thrown wide open they haven't any measure of protection at all to know how long the life of the gas will be, and this field had flown open for over a year, practically a year before it was even placed under proration, and it was several months even then before there was orderly proration. For instance, the field went into proration on May 5th, and as late as De-

ember an injunction was gotten out against the Railroad Commission on one or two proxies there and they produced wide open.

Now, the same things, in my estimation, is existing in East Texas. I know that the casinghead gasoline manufacturers would be tickled to death to go into East Texas with plants if they knew that the gas was going to be conserved and not wasted and lost before they could complete their plant. It takes from three to six months to build a large plant that will efficiently handle gas, and if the field is not regulated they cannot afford to go in there and build a plant to extract the gasoline.

Now getting back to the Crane field and the Winkler County fields, there is a real example, gentlemen, why we need a common law act, a common purchasing law act. Ratable takings and ratable purchasing. In other words, these large major units that only produce their own oil will invariably go into a field and drill a large number of wells, and let every fellow take care of himself. Mr. Nazro made the statement, and that has been their policy, that they have never purchased oil. Mr. Nazro also made the statement that their company was for proration in certain fields, but not statewide. Now, gentlemen, proration does not do you any good in certain fields if you haven't it statewide, because one field, like the Winkler County field, or the Panhandle field, or the East Texas field could be so disorderly operated—bring in such large amounts of oil,—that prorating the other fields, outside of the conservation of gas and oil, would be of no benefit, and that one field could ruin the market; and that is what we independent producers are interested in; that is what everybody is interested in, getting a fair price for our oil. And I am sure that is why the common purchaser act was placed on your statutes, for the reason to protect the individuals, and cause those large companies to take ratably from you. That has been the Gulf's policy in all fields. In other words, their drilling program was the same in Ector County; they caused our company to drill unnecessary wells, just because they wanted to go in and build up their own production

and take care of it, and not buy from anybody else. That is the condition existing in East Texas today. The Sinclair Company has made a large pipe line extension. They have put on a large drilling campaign. They are not taking anybody's oil. There is many an individual over there that has his properties standing idle by the major company's; they are running their oil, but not taking care of his. And we certainly need the enforcement of that law to regulate the oil situation. Your royalty holders over there have their oil in the ground and some of them have not sold a barrel since that field has been under production. The Panhandle situation is similar to the Winkler County. Those few red spots there are the violators of the proration order in the Panhandle field. The largest violator you have there is Danciger. He has produced over 800,000 barrels more than he was allowed to produce under the proration orders. He and a few other producers there, who have violated the orders, have caused over five hundred million barrels of oil to be produced in unequal withdrawals, and I maintain, gentlemen, that the Panhandle was the starting point of our demoralization in the oil business.

I have a chart here that I would like to give each of you Senators, if you care to look at it. It shows the trend of the crude prices, that each time a large flush field is found, due to the fact that it is not regulated, the flush production is built up to a large amount—the major companies that can afford it, place this oil in storage at low prices. When the flush is down, your price is regulated again, and I am sure that under orderly development and statewide proration, where there is no discrimination between pools, each producer in each field is entitled to his fair share of the oil, and you will straighten out these peaks and valleys in the crude prices, and will give us a condition that is much better for the State of Texas and the conservation of both oil and gas.

I have heard two or three very competent engineers make the statement here that there is very small waste of gas in East Texas. Gentlemen, they are blowing gas there at a tremendous waste, and it is causing a hurried encroachment of water.

You are not maintaining your reservoir pressure, there, and as you lose that, your water comes in from the west; and I make this statement, if something it not done in from three to six months at the latest, that that field will lose from one half billion to a billion barrels of recoverable oil. Gentlemen, if you will realize this, that that field is producing over five hundred thousand barrels of oil more than the State of California, or the State of Oklahoma. Our production reports today show that the State of Texas is producing practically eleven hundred thousand barrels of oil, and that is nearly half of the production of the United States. East Texas is out of control, and it is getting worse each day. There is something like eighty thousand barrels of oil going into storage daily in East Texas, and there is absolutely no question but that any oil that goes into storage beyond the reasonable market demand is waste.

Senator Purl: Did you say a billion or million?

The Witness: One half to one billion. Mr. Belt made the statement this morning that it was typical for all flush fields to run wide open and waste gas. Now, gentlemen, if they are orderly controlled, you can eliminate that great waste of gas. There has been no waste of gas in Ector County. There has been no waste of gas in Hobbs, New Mexico. Fields of that type can be regulated from their inception, and they should be. And I make this statement that if your East Texas situation is regulated immediately, you will find numerous companies that will be glad to go in there with large gasoline plants to extract that gasoline, and if necessary, repressure those sands.

Questions by Senator Pollard.

Q. Will you name the companies?

A. The Phillips Petroleum Company, and the Humble Oil & Refining Company.

Q. Are they doing that all over there now?

A. No, sir; they are not.

Q. How do you account that they have so much property over there—the Humble owns sixty per cent of the field, I understand?

A. The Humble owns seventeen per cent of the field, Mr. Farish said.

Q. The current report states sixty?

A. There are a lot of current rumors and reports that are exaggerated.

Q. They own seventeen per cent?

A. That is what they stated.

Q. They control more than that, don't they?

A. They own and control seventeen per cent, they say.

Senator Pollard: Go ahead, Mr. Landreth.

The Witness: I think, Senator, that is all the general statement I have to make.

Questions by Senator Woodward.

Q. A while ago in naming over the different groups of operators, I didn't go far enough in my question to get the information I wanted as to what were the different views of the different groups?

A. Well, as I stated—

Q. I mean, as to what should be done—that is what I meant?

A. The Mid-Continent Oil & Gas Association originated the idea of the Central Proration in a curtailment group, and the Central Proration, which have been closely connected with the Mid-Continent Oil & Gas, have been for conservation of oil and gas—orderly drilling. And as I stated to, and as you know, the Gulf's policy has been to produce wide open, operate the properties as they saw fit, and only go into these prorated fields when they felt it was to their best interests to do so. The independent organization, as I stated, primarily was organized for an embargo on oil, or a tariff on foreign production, and they have stated, that so far as proration was concerned, they were not so much concerned about that, but we know from their members, that in principle they are against it. Mr. Harry Pennington has an organization at San Angelo—

Senator Purl: San Angelo or San Antonio?

The witness: At San Antonio, that he says he represents some four or five hundred independent producers, but in checking over what we understand was a list, we did not know over twenty bona fide producers, and we understand they say they are for conservation, but not proration. So, I believe this, that you will find that when you speak of the independent producers, that eighty per cent of the legitimate producers of the State of Texas are for conservation and

orderly curtailment and operation of the fields of the State of Texas.

Q. Now, what is the attitude of these semi-major companies—the Simms—

A. They are all—there is not a one that I know of right now, that is not for a conservation program, and for the proration orders that have been carried out in the fields.

Q. Mr. Landreth, I believe you were one of the committee—I get that from the press—who prepared through Mr. Hardwicke and I believe, Mr. Rhodes Baker, and others—I don't remember who—a bill which was distributed, suggesting legislation in reference to the matters about which this Legislature is concerned?

A. Yes, sir.

Q. In that bill there was a section which has become familiarly known as "Section G," I believe, that embodied in it the idea that in determining the amount of production, the Commission could take into consideration the current consumption of oil. What are your views in respect to that feature of the Legislation? I would be glad if you will explain why you reached the conclusions you have reached.

A. I believe they define waste—the wording is reasonable market demand—I am not a lawyer, but I am basing my opinion on the practical side of it. In other words, all the fields that are now under proration, Senator, are based on the market demand. In other words, in Hobbs, New Mexico, we have pipe line nominations to the extent of 37,000 barrels a day, and that is what that field is based upon—that is what the market of that field is based upon. They take 37,000 barrels and divide it equally between all the producers in that field. The same thing applies at Yates. It has a 70,000 barrel market demand, and it is divided among the producers of that field. Our field in Ector—

Q. Is that divided in—

A. In proportion to their holdings, and the potentials of their properties.

Q. Is that developed in proportion to their holdings?

A. In proportion to their holdings, and the potentials of their properties.

Q. It isn't based on acreage?

A. Not based on acreage. The Yates is based on acreage and poten-

tials. In Hobbs, New Mexico, and Ector, it on the same basis. It is very fair—a very fair division, and I want to say this, that I have been one of the few independent operators in the West Texas fields, the fields longest under proration, and the manner that they prorated has been fair to everybody, and the fact of the matter is they were always fair. The major companies have always tried to give the independents the benefit of the doubt on any question. And, for that reason, we have gone into it, because we know they are treating us fairly, and we know that is our only protection in a major pool.

Q. What percentage of the so-called independent group do you feel entertain the view that it would be proper and to the best advantage of the independent to have a Commission take into consideration a reasonable market demand as an element in determining the amount of production?

A. Well, I believe that seventy-five to eighty per cent of the legitimate oil producers would be of that view, because there is so much oil taken from a field, and so much demand there, and so much pipe lines that want to buy that oil, and you have to set a figure before you know how to put your proration into operation. You have to have that over thirty days, or, if it is fifteen day period, you must know those figures.

Q. Of course, Mr. Landreth, I suppose you know of a bill that some of us have prepared or that we—we at least attempted to take that clause out—I think that probably in the redraft it is absolutely out.

A. I understand so, and we felt that that was a very important part of that bill.

Q. In other words, you think that the bill that we have redrafted then is weakened by reason of having eliminated that feature?

A. Absolutely, to this extent—that that being taken out, if we only have a market for eight hundred thousand barrels of oil, and that is our market in Texas today, our market is supposed to be between eight hundred and eighty thousand barrels, a day, and we are producing a million one hundred thousand barrels a day, so we are producing two hundred to two hundred and fifty thousand barrels over our

needs, and that must go into storage.

Q. Don't you believe, Mr. Landreth, that by a strict observance of conservation laws or rules, that we would have a tendency to reduce the daily output, which is an incident, of course, and would have the same effect to cut that down.

A. Senator, here's the possibility: East Texas field is such a large and wonderful field, that it has possibilities to produce a million barrels of oil without waste, and if they produced a million barrels of oil—

Q. (By Senator Pollard) You mean a day?

A. Yes, sir; a million barrels a day. And, if that field produces a million barrels a day, and if we only have a market demand in the State of Texas for eight hundred and eighty thousand barrels, that market is so accessible to the coast that your oil fields in other parts of the state are going to have to be closed in to give this one pool all the market.

Senator Purl: I believe that was all I care to ask.

Senator Pollard: Mr. Chairman.

The Chairman: Senator Pollard.

Senator Pollard: May I ask a question?

Questions by Senator Pollard.

Q. Mr. Landreth, you are acquainted with the new and improved conditions in the growing of cotton in West Texas, are you not?

A. I am not, Senator Pollard.

Q. Well, for your information you know they didn't grow any cotton in West Texas ten or fifteen years ago to any extent.

A. That's what I have understood.

Q. Now, they have found that by using a tractor that one man can cultivate maybe a hundred acres of cotton, isn't that true?

A. I don't know. I would imagine.

Q. In East Texas, a man with a single stock,—a Georgia stock as we call them,—and a mule, can only cultivate nine to ten or fifteen acres along with his corn crop, and as a result the cotton farmer in East Texas is just about through. Now then, do you think that it would be fair and proper to curtail the production of cotton in West Texas, so that the East Texas farmer, with his small acreage could make more money out of his cotton?

A. Senator Pollard, I am not fa-

miliar with cotton at all. I would be glad to talk with you about the oil situation, but I am—

Q. Well, you are a citizen of this state, aren't you, Mr. Landreth?

A. Yes, sir.

Q. And naturally are interested in any policy affecting the general welfare of the people?

A. My business is the oil business, and I am giving it most of my time, Senator Pollard.

Q. How much production per day do you have?

A. We have a potential I think of—potential production of twenty thousand barrels a day.

Q. How much production do you have?

A. About sixteen or seventeen hundred barrels.

Q. Production of sixteen or seventeen hundred barrels?

A. Yes, sir.

Q. What are your assets of your company a day? What are the assets?

A. Well, the assets of our company,—the leases of our West Texas properties that, under reasonable conditions have a fair—have a value of some two or three million dollars over our liabilities.

Q. What are your assets?

A. Well, our assets consist of—

Q. Just in general.

A. —consist of our producing oil property.

Q. I mean what does your statement show?

A. It shows—

Q. What is the worth of your company?

A. Well, the worth of our company is four or five million dollars.

Q. What are the liabilities?

A. Million and a quarter.

Q. What does that consist of? To whom do you owe that?

A. That consists of moneys owed to bankers, and supply companies, and things that any oil company would owe.

Q. You mean oil companies that you owe for—

A. No; I say that any oil company's liabilities would show on their accounts payable and notes payable.

Q. Mr. Landreth, you have been rather prominently identified with the Central Proration Committee, have you not, from its inception?

A. That is true.

Q. Now, can you give me today the last proration order as to the various

fields in Texas? How much did they allow Crane field?

A. Crane field has been allowed about twenty-eight thousand barrels.

Q. How much production—potential—did they give the Crane County field?

A. Why, Crane County has a potential production—

Q. How much did the Railroad Commission give it?

A. I don't know off hand, but—

Q. How did they arrive at that allowance for that field?

A. They arrived at that allowance by the ability of their property to produce out there without wasting gas, and the ability of their purchasers to distribute their purchases among the various operators.

Q. Did they allow the full nominations made by oil purchasers for the field?

A. I am sure they did.

Q. Did they allow that for the Big Lake field?

A. The Big Lake field has been producing above its allowable.

Q. I am talking about the order. Let's stay with the order.

A. It is producing above its order.

Q. Then they didn't allow—what do you call it,—nominations, to buy made by the purchasers for that field?

A. I don't know what the nominations had been out there.

Q. All right. Did they allow it for the Winkler field?

A. The Winkler field is producing all the oil it possibly can.

Q. Then they were permitting them to sell all that they can produce in that field?

A. Yes, sir. They have to do that, Senator Pollard, because that field is down to the point now where they must get all of the oil they possibly can. They have a very serious water situation.

Q. I believe you said the allowable in the last order of the Railroad Commission for Yates pool was fifty thousand barrels?

A. Seventy thousand.

Q. And that they could make a hundred thousand?

A. The Yates pool could produce a hundred thousand barrels per day for several years.

Q. Yes, sir.

A. Without any danger of water encroaching or waste.

Q. Now, what is the allowable for the Van Pool?

A. The Van pool was allowed fifty thousand barrels a day.

Q. And it has been estimated that it could produce two million barrels a day.

A. Its potential.

Q. The potential.

A. Yes, sir.

Q. How much could they produce without waste?

A. I believe Van Pool could probably produce, I would say a hundred thousand barrels of oil a day without waste.

Q. Yes, sir. Now, the East Texas field,—what was the allowable?

A. The last figure was two hundred and fifty thousand barrels a day.

Q. Yes, sir; that was more than your committee recommended.

A. Our committee did not make a recommendation.

Q. They had a row about it, didn't they?

A. Yes, sir; there have been several rows.

Q. You stated that they could produce a million barrels a day without waste.

A. I said there is a possibility of that field producing a million barrels during its life.

Q. What are the nominations for that field?

A. I don't know. Nobody knows.

Q. That is due to the fact that you divided the oil producers and purchasers into legitimate and illegitimate oil producers and purchasers?

A. No, sir; that wasn't taken into consideration.

Q. What is an illegitimate oil producer?

A. Have I used that word?

Q. No, sir; but you have stated here that eighty per cent of the legitimate oil producers favored certain things, and I want to know the difference between a legitimate oil producer, and an illegitimate oil producer. Does that have reference to heredity, or a violation of rules?

A. It has reference to the violation—a person that paid no attention whatsoever to orders, or regard for their neighbors, or the conditions of an oil field.

Q. Yes, sir. Then any man that disagreed and went into court to determine his rights is an illegitimate oil producer?

A. Not necessarily.

Q. Well, what do you mean?

A. I mean this, that any operator that would deliberately in any field, without regard to his offset producers, or of physical waste, and of the gas energy in the field, in wide open production, is the type that I refer to there.

Q. He is an illegitimate oil producer?

A. That's right.

Q. Now, would you call the Gulf Production Company an illegitimate producer of oil?

A. Not in that term.

Q. Would you class Joe Danciger as an illegitimate oil producer?

A. Yes, sir. Absolutely.

Q. And Tom Cranfill,—would you class him as an illegitimate oil producer?

A. Yes, sir.

Q. How big does a fellow have to be before—for him to become illegitimate in going into the courts to determine his rights?

A. The sky would be the limit.

Q. The sky's the limit?

A. Yes, sir.

Q. All right, then. I believe you stated that the Gulf had assumed the same attitude that Mr. Cranfill and Mr. Danciger had as to proration.

A. I said this, Senator. I said they have no regard for the independent producer in this respect; they are for themselves. They are not interested in buying his oil, and they want to be left alone in the different fields, and to do as they please, although Mr. Nazro said that he usually went along, but their policy has been against state-wide proration, and that is a serious detriment to our State.

Q. Now, in regard to the Arkansas Fuel & Gas Company, and Sinclair, and I think it twenty-five others in East Texas who have obtained injunctions, or brought suit against the Railroad Commission to enjoin them from enforcing proration, they are all illegitimate oil producers?

A. The Arkansas Fuel & Gas was forced to that procedure. They were one of the few big operators in the field that agreed to buy oil ratably. They produced their property ratably but they were forced to do that because so many were offsetting them

they had to revert to that situation.

Q. You are familiar with the fact that the Humble Oil Company and probably the Gulf and the Texas, I am not sure, obtained letters or got consent from the Railroad Commission to haul all the oil that they wanted to offsetting wells over there, are you not?

A. I think they are more or less entitled to that privilege.

Q. If one man commits murder against another family in Texas, as a matter of revenge the other family should have somebody to go out and kill the other man's family, if possible. Is that your idea of law enforcement?

A. That would not be my idea at all.

Q. Now, the first hearing in regard to the East Texas proration was in the latter part of March, this year?

A. I think so.

Q. And at that time I believe there was approximately two hundred thousand barrels of oil nominated by the East Texas Independent Refiners and purchasers, were there not?

A. By independent refiners and purchasers?

Q. Yes, and people who were building refineries over there, and isn't it a fact that your committee and the Railroad Commission took the position that these people were illegitimate and did not consider their nomination in making the first proration order,—isn't that a fact?

A. No. Will you let me — — —

Q. (Interrupting) Go ahead.

A. I want to make this statement. There was fifty thousand barrels suggested for East Texas at that time, that you had a potential there of approximately two hundred thousand barrels. It was a very fair allowance for the field to be permitted to produce — — —

Q. (Interrupting) How much nominations were made at that hearing?

A. The nominations were so received that you couldn't tell, I think in reality,—to be exact, some fifty thousand barrels nominated.

Q. You mean for the major oil purchasing companies and they refused to consider those by those in-

dependent fellows over there. Isn't that a fact?

A. No, sir, the facts are this: The real nominations were to that amount, and there were a few letters to this effect, "We will take fifteen thousand barrels providing we can sell our oil," or something to that effect, and that is not a legitimate nomination.

Q. A nomination must be made by some man that you know has got the money?

A. That isn't it, although, I think it should be made.

Q. Suppose the Humble Oil Company nominates a hundred thousand barrels in the East Texas field and within ten days after the nomination decides they will not take it. What would you do about that? Let somebody else have it, or keep it there?

A. No, sir, I would say this: If your outlet was set at a hundred thousand barrels and the Humble nominated a hundred thousand barrels, you would take your other legitimate purchasers, those that you know would buy the oil — — —

Q. (Interrupting) Please name what is a legitimate purchaser. You have used that word every now and then.

A. My explanation of that is this. For instance, I have had people to come to me and say "I want to buy five thousand barrels of oil a day over a year period," and I knew when they were talking to me that they didn't even want a hundred barrels a day.

Q. How do you know that?

A. Because I have had so much experience with these different fellows and they have fallen down ninety-nine times out of a hundred, and it has taught me to figure that out. Now then, I started to say if you had an outlet in your field and it was set at a hundred thousand barrels to produce ratably, the Humble Oil Company nominated a hundred thousand barrels and you had fifteen other purchasers in there, you would give those nominations a fair share of that oil.

Q. I believe you stated today, in the beginning of your testimony,—what did you call your committee?

A. The Texas Oil Emergency Commission?

Q. Yes, you stated that the defi-

nition of waste in excess of market demand would apply with particular reference to each field?

A. I think so, there is no question about that.

Q. Then, in the Yates pool where they can only produce a hundred thousand barrels, if they can sell a hundred thousand you would let them sell that regardless of how much potential they had?

A. I think this, if a hundred barrels there could be sold without waste, that that might be their market demand in that one pool.

Q. All right. Then you would sell all they could make?

A. No, sir, not particularly.

Q. You said you would do it, if they could do it without waste.

A. No, sir, I think I made that explanation clearly.

Q. Then, I didn't hear it.

A. If you had a market demand in the State of Texas for eight hundred and eighty thousand barrels, you take the State as a whole and divide each field without discrimination, between pools, and then allocate each field on the fair proportion of that market.

Q. And you think that is the way proration should be administered?

A. Absolutely, yes, sir.

Q. I want to ask you if you believed that while you as a member of the Central Proration Committee,—why you have not insisted for the past two years that proration be equally distributed as regards potential production over this State?

A. In the first place, I am not a member of the Central Proration Committee.

Q. Well, you have been so close to them I thought you were. I beg your pardon.

A. I am chairman of West Texas. Now, I have advocated the fair allotment to each pool in the State of Texas.

Q. But you did say a few minutes ago that fifty thousand barrels from the one hundred and fifty thousand production in the East Texas field the first part of this year would be fair and you also stated the committee allowed seventy thousand barrels from the Yates pool that could only produce a hundred thousand.

A. I said without waste. The

Yates pool has a potential of some four million barrels of oil daily.

Q. That is two million higher than the Railroad Commission hearing has developed. How do you account for that?

A. You are mistaken about that. You have that two million mixed up with the East Texas.

Q. With the Van field?

A. Yes.

Q. Do you believe that if every well in the Yates pool was opened wide open for ten days it would run four million barrels daily?

A. No, sir, I believe if every well in the Yates pool was opened wide for ten days that you would probably get five or six hundred thousand barrels of oil and that much water.

Q. Then you do not believe it has a potential production of four million barrels daily?

A. Yes, sir, I do believe that.

Q. For how many days?

A. That is for twenty-four hours. That is the way all potentials are taken.

Q. For how many days would it produce four million barrels daily?

A. It would produce four million barrels daily, as many days as your East Texas would two million barrels daily.

Q. For how many days?

A. I couldn't estimate it

Q. You just said it wouldn't do it for ten days?

A. No, sir.

Q. What is potential production in your mind?

A. Potential production in my mind is a test. The manner that they take these tests is usually a three-hour period and particularly with Yates where you have such a large volume of oil that you can't take it over three hours, and it is customary to take them only one hour in this field, and that is the same method that is being used in East Texas today.

Q. All right. I will drop that. I want to ask this: The purpose you fellows had in getting the Governor to call the Legislature together was to pass a stronger proration law?

A. The purpose of that was to get the Legislature together, as I stated before, to put our State under a statewide conservation law, that would give each field and each pool its fair share of its oil.

Q. Now then, conservation, what does that word mean in your opinion?

A. That means to conserve our gas and our oil.

Q. Now, any conservation measure that would pass the Legislature that failed to provide for proration, would be a failure in your mind?

A. Not particularly.

Q. Well, isn't that what you have been advocating all the time?

A. Yes, sir, I think we should have statewide proration.

Q. If we pass a ratable taking law, would that assist any?

A. Absolutely, that would help.

Q. How many members, how many legitimate operators run with your gang in this movement to call the Legislature together?

A. Mr. Pollard, when you refer to our gang—

Q. (Interrupting). I beg your pardon. That is the way we talk over in East Texas. We don't mean anything discourteous. If it suits you better I will say association, aggregation, or anything you want.

A. I believe, as I stated before, we can speak for seventy-five to eighty per cent of the oil producers in the State of Texas.

Q. Will you name the producers, furnish a list to the reporters of all the producers in your association?

A. Yes, sir, I can furnish you a list.

Q. Can you do it now?

A. Yes, sir.

Q. Will you do that?

A. Yes.

Q. Read it off?

Q. (Interrupting). To save a lot of time, you can hand that to the Clerk and he will put it in the record?

A. All right.

(The following is the statement handed to the reporter by the witness.)

LIST OF LETTERS MAILED OUT MAY 28, 1931.

Original Assessment.		Assessment Paid 6-1-31 to 6-1-32	
500.00	Atlantic Prod. Co. Dallas, Texas,	800.00	500.00
278.00	Amerada Petroleum Corp. W. T. Waggoner Bldg., Ft. Worth	1000.00	
50.00	American Refining Properties Waggoner Bldg., Wichita Falls	100.00	
100.00	Arkansas Gas & Fuel Co. Ardis Bldg., Shreveport, La.	1200.00	600.00
600.00	Barnsdall Oil Co. Petroleum Bldg., Tulsa	600.00	300.00
75.00	Bridwell Oil Co. City Nat. Bk. Bldg., Wichita Falls	200.00	
	Big Lake Oil Co.		300.00
50.00	Wm. Cameron & Co. Fort Worth	100.00	
1350.84	California Company Marvin Bldg., Dallas	1000.00	800.00
50.00	Cantey, Hanger, McMahon Sinclair Bldg., Ft. Worth	100.00	
50.00	A. C. Carter Fort Worth	100.00	
100.00	Continental National Bldg. Fort Worth	100.00	
200.00	Cosden Oil Company Elec. Bldg., Fort Worth	200.00	
50.00	Clay Lumber Company Stephenville, Texas	100.00	excused
50.00	Darby Petroleum Co. Thompson Bldg., Tulsa	200.00	87.50
50.00	Devonian Oil Co. Exchange Bank Bldg., Tulsa	800.00	
50.00	Delmar Oil Company Bartlesville, Okla.	100.00	
100.00	R. O. Dulaney, Sinclair Bldg., Fort Worth	100.00	
375.00	Empire Gas & Fuel Co. Bartlesville, Okla.	700.00	
100.00	First National Bank. Dallas	200.00	100.00
100.00	First National Bank. Ft. Worth	200.00	
100.00	Ft. Worth National Bank. Ft. Worth	200.00	100.00
100.00	Golding and Cochran, Wichita Falls, Tex.	100.00	
25.00	Gibson & Johnson W. T. Waggoner Bldg., Ft. Worth	200.00	
100.00	W. B. Hamilton, Wichita Falls, Tex.	200.00	100.00
50.00	J. L. Hammon, Simpson Bldg., Ardmore, Okla.	200.00	50.00
100.00	Halliburton, Oil Well Com. Co. Duncan, Okla.	200.00	100.00
250.00	Houston Oil Company, Petroleum Bldg., Houston	1000.00	
5606.00	Humble Oil & Refg. Co., Houston, Tex.	7200.00	3500.00
50.00	R-Y-Oil Company, Fort Worth	100.00	12.50
125.00	Kewanee Oil & Gas Co. Kennedy Building, Tulsa,	250.00	100.00
200.00	Landreth Production Co. Petroleum Bldg., Fort Worth,	400.00	
100.00	Lone Star Gas Co. Dallas,	400.00	400.00

Original Assessment.		Assessment Paid 6-1-31 to 6-1-32	
50.00	Lucey Petroleum Co. 1405 Magnolia Building, Dallas,	100.00	100.00
1936.00	Magnolia Petroleum Co., Magnolia Bldg., Dallas,	2500.00	
75.00	J. C. Maxwell, Fort Worth Natl. Bank Bldg., Ft. Worth,	200.00	
1692.26	Mid-Kansas Oil & Gas Co. W. G. Waggoner Bldg., Fort Worth,	4500.00	2000.00
200.00	Moody-Seagraves, Galveston, Texas,	600.00	
1600.00	Phillips Petroleum Co. Bartlesville, Okla.	2000.00	1000.00
800.00	Prairie Oil & Gas Co., Eastland, Texas	1200.00	600.00
800.00	Pure Oil Co., Petroleum Bldg., Fort Worth,	2500.00	
75.00	Plymouth Oil Co. 223 4th Ave., Pittsburgh, Pa.	200.00	100.00
75.00	Producers & Refiners Corp. Prairie Bldg., Independence, Kan.	75.00	
100.00	Penn Oil Co. First National Bank Bldg., Dallas,	200.00	
25.00	Nash & Windforh, Graham, Texas,	100.00	
87.50	Rio Grande Oil Co. 417 S. Hill St., Los Angeles,	200.00	
200.00	Rosser & Pendleton, Inc. Fort Worth Club Bldg., Ft. Worth,	600.00	300.00
100.00	Rowan & Hope, Inc. 630 Milam Bldg., San Antonio,	100.00	
50.00	St. Mary's Oil & Gas Co., St. Mary's, W. Va.,	100.00	50.00
1825.92	Shell Petroleum Corp. Dallas, Texas,	3000.00	1500.00
800.00	Simms Oil Co., Dallas, Texas,	1000.00	
60.00	Snowden & McSweeney, Burkburnett Bldg., Ft. Worth, Stanolind Corp. Fair Bldg., Ft. Worth,	300.00 1500.00	300.00 750.00
200.00	Slick-Urschel, Inc., Oklahoma City,	200.00	100.00
1022.25	Sun Oil Co. First Natl. Bank Bldg., Dallas	1800.00	900.00
1019.84	Texas Pacific Coal & Oil Co. Ft. Worth Natl. Bank Building,	1200.00	
50.00	Thompson & Barwise, Ft. Worth Club Bldg., Ft. Worth,	100.00	50.00
3400.00	The Texas Company, Houston,	5000.00	
175.00	Tidal Oil Co. W. T. Waggoner Bldg., Ft. Worth,	800.00	
60.00	Vennex Oil Co. 420 Lexington Ave., New York,	60.00	
50.00	Vacuum Oil Co. Esperson Bldg., Houston,	200.00	50.00
100.00	Westbrook & Co. and Williamson Co. Pipe Line, Electric Building, Ft. Worth,	500.00	
	Southern Crude Oil Purchasing Co. and Southern Pipe Line Co. Medical Arts Bldg., Ft. Worth,	1800.00	600.00
	June 15, 1931,		7700.00
	Total to July 10,		15650.00

Q. How many are there?
A. I think sixty or seventy members, of the Texas emergency, and in addition to that I still want to refer to members of the Mid-Continent Oil & Gas Association, a good many of those.

Q. Just how many?

A. I am saying that these organizations speak for themselves in obeying and carrying out the conservation laws we now have.

Q. Do you mean every man that has not filed a suit to enjoin the Railroad Commission for enforcing a proration order is for the bill you advocate?

A. No, sir, I don't mean that.

Q. What do you mean?

A. As I have stated, it is my estimate that eighty per cent of the operators of the State of Texas are for a conservation measure and ratable takings and a law of the type we are sponsoring.

Q. That is your opinion?

A. Yes.

Q. Upon what do you base that opinion—How many independent operators are there in Texas?

A. I would say off-hand some eight hundred—between eight hundred and nine hundred companies that filed their production tax in the Comptroller's office.

Q. Are they all legitimate?

A. I say that the majority of them are.

Q. There don't any of these illegitimates belong to your associations?

A. Well—

Q. You wouldn't let them join, would you?

A. Some of these men are all right.

Q. Now, this Mid-Continent Oil & Gas Association is composed of all major companies, is that true?

A. It is composed—

Q. They all belong?

A. Most of the major companies are members.

Q. Let me ask you some more questions right here. These semi-majors you are talking about are nothing in the world but the subsidiaries of the Standard Oil Group, are they not?

A. You are mistaken about that.

Q. Let's name those who are, and those who are not.

A. I don't know of any of those

semi-majors that are subsidiaries of the Standard Oil Company.

Q. The Simms is not?

A. No.

Q. Who finances them?

A. The banking interests over the country, Mr. Pollard.

Q. How about the others you named?

A. Phillips?

Q. Who finances it?

A. The same procedure.

Q. They don't sell or deal with any of the Standard group, or depend upon them for outlets?

A. They sell them gasoline. Everybody in the oil business does. Just because you deal with a major company is no reason to be classed as one of their subsidiaries.

Q. Did you hear the list of subsidiaries of the Humble given by Mr. Pennington yesterday?

A. Of the Humble?

Q. No, I mean the Standard.

A. No, but I know about who all of the subsidiaries are, and I am sure you will those semi-majors I referred to are any of them subsidiaries of the Standard.

Q. Who do you sell your oil to?

A. We sell the most of our oil to the Shell Company.

Q. Now, Mr. Landreth, in the preparation of the Housley Bill, which is the father or grandfather of the bill we have now, who assisted you in the preparation of that bill?

A. Mr. Robert Hardwick, Mr. John Kilgore, Marion Church and R. H. Foster.

Q. Who is he?

A. Our attorney.

A. Mr. Robert Harwick, Mr. John Kilgore, Mr. Marion Church, and Mr. R. H. Foster.

Q. Who is Mr. Foster.

A. He is our attorney.

Q. They assisted in the preparation of this bill?

A. Yes, they were the attorneys that prepared the bill.

Q. Then after it was prepared you got in touch with some of the major companies, did you not to get their approval, the Humble Company approved it?

A. No, sir.

Q. They didn't know anything about it?

A. No, sir, after the bill was prepared they didn't know anything about it.

Q. You and Mr. Roeser and Mr. Collett went down and conferred with the Governor and he approved it?

A. Yes, sir.

Q. Didn't you tell me at that time, when you wanted me to introduce that bill, that with the approval of the Governor you thought we could get the bill through the Legislature?

A. No, sir, I told you we had prepared a bill and we were going to ask the Legislature to pass such a bill and we went to the Governor because he is an oil man and he knows the situation in the oil business.

Q. You went to the Railroad Commission and got a letter from them?

A. We talked to the Railroad Commission several times.

Q. I mean about that particular bill, you went to them and got a letter from them and you circulated it and handed it out all over the Senate?

A. No, sir, we didn't get a letter from them.

Q. They said that they had to have something done right away or the bottom was going to fall out of the business.

A. They knew that.

Q. You printed that on a circular and circulated that around here?

A. That is right.

Q. You told me that it was all done to help your bill.

A. No, sir, I didn't tell you that.

Q. What did you tell me when you handed it to me, when we were talking and kidding about it?

A. I handed it to you and you said this a pretty good bill, and you said I will introduce that bill if Carl Estes would approve it.

Q. No, sir, I told you that if you could Brockfield and Dan Moody,—

Senator Woodward: Mr. Chairman, I arise to a point of order. I think the conversation between the two gentlemen is wholly immaterial here.

The Chair: I sustain the point of order.

Q. In regard to this other bill, you did say that was prepared in Dallas?

A. Yes, sir.

Q. That was prepared some two or three weeks before the Legislature got together?

A. That was prepared, I would say, thirty or forty days ago.

Q. Who assisted in the preparation of that bill?

A. We had a local committee together with some ten or twelve practical operators over large sections of the State of Texas to prepare that bill.

Q. Now was that bill approved by Mr. Hardwick?

A. Mr. Hardwick was the secretary of that Legal Committee.

Q. Was that bill approved by The Texas Company?

A. That bill was not even submitted to any of the major companies for their approval.

Q. Before it was written.

A. Before or after.

Q. They are endorsing that bill, aren't they?

A. Yes, they are because it is a good bill.

Q. And the Humble Company?

A. I don't know whether the Humble Company endorsed it or not, but I know the Texas Company endorses the bill.

Senator Woodward: Senator, you are not talking about my bill?

Senator Pollard: No, you have changed yours so much I don't know what is in it, Senator.

Q. Now, if we should pass a conservation measure here it will be in your opinion a good bill, if it has proration in it. Would you object to a provision in this bill which would state that each field if prorated, that all fields in Texas must be prorated equitably, equally, justly and fairly as to the potential production?

A. Yes, sir.

Q. And their potential production must be arrived at in the same manner?

A. I would add this word in addition to potential, their reserves.

Q. Could that be arrived at by ratable takings?

A. Yes, sir, that would partially cover it.

Q. Would you favor, speaking for eighty per cent of the legitimate operators of this State, a bill which would provide that pipe lines must take ratably as to all wells, that they must furnish connections, within a certain reasonable degree as to distance, from all wells alike, that they must purchase ratably, and if they do not purchase ratably that

the Attorney General will bring suit for the forfeiture of their permit to do business in Texas, and draw ratably from all producers?

A. I believe that would be a good general part in the bill, I would be in favor of that.

Q. And provide further that the offset well, from which they did not take ratably could recover from the purchaser and pipe line company an amount equal to that taken from the well?

A. They could not take ratably if they did not do that.

Q. But if they failed to do that and discriminated against that well, don't you think it would only be fair to determine the measure of damages equal to the amount taken from the offset well?

A. I think you have that personal right there, but I think they should take ratably and that is what I understand ratably means. It means every well in the field, I think they should get some very strict enforcements in there and a penalty.

Q. That also provides that the purchaser of the oil must pay for the oil, that it is due on the fifteenth day of each month for the preceding month purchased?

A. That is in the division orders now, they all do that.

Q. They don't all do it.

A. They do if your title is clear.

Q. Well, in these East Texas fields they are not doing that.

A. Well, you have your illegitimate purchasers over there.

Q. Now then, these purchasers that hold up payments on a well on the slightest defect in the title?

A. No, sir, I think if they have a legitimate objection to the title—

Q. No, I mean that if fifty or sixty years ago there is a little break in the title and they use that?

A. I have sold a lot of oil, and a lot of times I have had to do a lot of running around to get surative matter to get the title in shape to get my payments, but none of them have been held up improperly.

Q. The general consensus of opinion is that sixty per cent of the oil in East Texas has not been paid for in the last six months?

A. I don't know about that. I have heard of a lot of oil over there that the operators and producers have not been paid for, but I think it is because of the inability of the purchasers to pay.

Q. You mean the companies buying it?

A. Yes, there are a lot of producers over there and a lot of pipe lines over there that have disposed of the oil, and a whole lot of it that the royalty owners will never get paid for. I think that is due to the disorderly development and operating your production at night, the production is shipped out at night in tank cars and nobody has a chance to check on it.

Q. Do you think they are taking oil out over there so it is not run through the gates?

A. I think they are taking a lot that is not even reported. My estimate is that there is fifty to a hundred thousand barrels of oil a day going out of those fields when it is not accounted for.

Q. Isn't there a statute making it a criminal offense to do that?

A. I think so.

Senator Pollard: Senator Woodward, is there a penalty against that kind of thing, running that oil out without paying the taxes on it?

Senator Woodward: I think so.

A. It is my information that is the way it is going, and I think a provision of the bill would be well founded.

The Chair: Does anyone else have any questions?

Senator Woodruff: I would like to ask him some questions.

The Chair: Senator Woodruff.

Questions by Senator Woodruff.

Q. Taking up the last question you just answered, you think that probably fifty to a hundred thousand barrels of oil a day is going out of East Texas that is not accounted for to the State?

A. I would say there has been times when there was fifty to a hundred thousand barrels of oil taken from that field that has not been accounted for.

Q. Is that a guess?

A. Yes, sir.

Q. Why do you guess that?

A. Well, because if you went to the field and saw the condition that existed there and particularly at night, the open flares that are going wide open, and see the production report, that oil has to go somewhere, and that is the way it has been stated, but I make the statement that so far

as I am concerned I haven't any knowledge of it whatsoever.

Q. You are satisfied in your own mind from evidences that you have seen with respect to the individual locations, the gas that is being burned there, that oil is being produced and not accounted for?

A. That is right, yes.

Q. Have you reported that to the Attorney General or to the prosecuting attorney of the county where it was happening?

A. That has been merely understood over there.

Q. Well, have you made any report of it?

A. I have not.

Q. You told the committee a little while ago that the major companies were fair under proration toward the minors or independents in the Winkler field?

A. Yes, sir. So far as I am concerned in my observation in all of the fields where I have had any experience with proration, including East Texas, they have been very fair.

Q. Absolutely fair in attempting to give a little man a square deal?

A. Yes, sir, they have been for proration and have been leaning backward to grant them preference.

Q. If we had state wide proration do you think they would still have a policy of fairness toward the little man?

A. Yes, sir, absolutely.

Q. You stated a little while ago that you owned some acreage in the Waggoner pastures?

A. Yes, sir.

Q. Did you say the Humble Oil and Refining Company drilled those offset wells?

A. Yes, sir, that is the company.

Q. The Humble Oil and Refining Company drilled in such a manner that you were compelled to dispose of your properties to the Simms Petroleum Company.

A. Yes, they caused us to drill so many wells that we were compelled to dispose of our property.

Q. Did you consider that fair?

A. Not at that time.

Q. I am told that this happened in producing fields; I go over there and get ten acres, and I go to work and borrow from my friends and my banker and wherever I can get a little money and drill one well and get a producer. I have exhausted my resources, I cannot drill any more until

I sell enough oil to pay my creditors the cost of the first well so as to build up my credit for drilling additional wells, and oftentimes those who own the abutting property around my lease are relatively strongly entrenched financially and able to drill as many wells as they choose, and that it is not an uncommon thing for them to go in there and put down a row of wells around my property and under circumstances that make it possible for me to drill offset wells to all the wells that they drill, that is done sometimes, isn't it?

A. Senator, that used to be the policy and the method of the companies, but I may state this, that this orderly drilling, and trying to work out a curtailment program in the State of Texas the last two or three years the companies have all more or less changed their method of operation. They eliminate every unnecessary well they possibly can. In this particular case you refer to I can answer that very well because I have been there myself many times, in that very position, but their policy now, Senator, would be that you, having one well on the ten acres, that if they surrounded you, one company surrounded you, I doubt whether they would drill over two wells instead of a row all around you. In other words, their plan is now, and I have had them tell me, that in the case of a smaller tract, regardless of how many different owners were around that, the smaller tract should be allowed to produce practically as much as all of those offsetting it. In other words, to give equal drainage.

Q. Well, if that was done, is it unfair?

A. No, sir; that is very fair on that basis.

Q. All right. If they drill more wells than I am able to offset—they do not go back inside their property, but they drill around the edge of their property adjacent to me, and I am unable to offset all the wells they drill; is that fair to me?

A. Well, Senator, here is the answer to that. In the first place, one well to ten acres—it is according to where it is—I think one well to ten acres is as many wells as you should drill on a ten-acre tract, for instance in East Texas, and none of the major companies, or even independents, would come in and drill many wells

around your tract, because they would not be justified in doing it.

Q. Well, what I was getting at now—why do you think the Humble Company would be fair to you with reference to proration, and unfair to you in a drilling campaign?

A. For this reason: Under proration, they have their percentage of acreage in the field—two per cent or twenty per cent—and under proration it is orderly development of that field. They conserve both their oil and gas; they take it out orderly; the life of that field will be prolonged two or three times; the ultimate recovery will be twice as much; and the big companies in most cases want to operate that way, because it is a big saving to operate that way over the old method of going in there and forcing you to drill unnecessary wells, and too close spacing of wells.

Q. Have you any acreage in East Texas?

A. No, sir; I haven't any acreage there at all.

Q. Has your corporation?

A. No, sir.

Q. Have you ever owned any over there?

A. No, sir.

Q. You haven't?

A. No, sir; we checked that over carefully, and we want to go in just as soon as this situation is settled—when we know what basis to operate on.

Q. Where do you own acreage that is producing or not producing at this time?

A. Well, we have several thousand acres of leases scattered through West Texas, and our producing properties now are in Ector County, and in Pecos County, and the Hobbs, New Mexico, Field. We have royalties in the Winkler County pool; we have royalties in Fisher County; and we have a twenty per cent interest with the Phillips Company in the Wilbarger properties.

Q. Then, your interest in putting the harness on East Texas—the proration harness—is at least in part a selfish interest, isn't it?

A. No; it is not. We are really trying to do East Texas a favor, Senator, in this respect.

Q. Oh, I see.

A. If you will pardon that statement, I think we are trying to do them a favor, and over a long period

of time it will be proven that our purpose, and my purpose, is this: I have been very active in the production of oil in Texas since I came here, and I was one of the first that went into these proration plans; and I am a volunteer in it; and I believe each pool in the State of Texas getting its fair share of the oil, and I believe that East Texas should get every barrel they are entitled to, but they should not take the market from North Texas, and South Texas, or West Texas.

Q. Mr. Landreth, if it were possible for the Landreth Oil Corporation to get control of the market in Texas at this time and dominate the price, would it do so?

A. Well, I heard Mr. Farish's testimony about dominating the market, and if they can't do it, I don't believe we could.

Q. If it could be done, would you do it?

A. We would like to be in the position of owning a lot of properties, and sit in on the picture, and help make the markets. We think that would be a very enviable position.

Q. Then, if you could do so, you would make the market?

A. If we were selling oil, I would certainly like to get a good price for our oil.

Q. Primarily your interest in proration and regulation in East Texas is in the hope that it might benefit the other producing areas of the State; that is the main objective in view in your mind?

A. Absolutely.

Q. To that extent you are partially interested and concerned, are you not?

A. Yes, sir.

Q. All right. You said a while ago that you had not paid much attention to the cotton growing industry in Texas?

A. That is right.

Q. Have you paid any attention to the wheat?

A. Not so very much.

Q. And to the cattle business?

A. I have some good friends in the cattle and wheat business, and I talk to them about it; but we have been having enough troubles in the oil business, and I have not gone into that very thoroughly.

Q. Now, just as a matter of fact, aren't you aware that it is possible for a man to be too near a mountain to see it.

A. Well, will you explain that a little bit further, so I can get your thought on that?

Q. Well, if you were standing right up beside Pikes Peak in Colorado, could you get any conception of that hugeness in the height and magnificence of that mountain?

A. Not as well as you could away from it.

Q. Isn't it possible, Mr. Landreth, that you, as being directly and personally interested in the price of crude oil, are just possibly a little too close to the problem to get a true perspective of the ultimate effect on all the people in Texas?

A. I believe I am close enough to the oil situation to see the great damage that fields like East Texas are doing to the State of Texas, and I don't believe I am too close to it. I believe that in the oil industry I have taken a very decided active interest in it, because I hope to make it my life profession, and I am very much interested in the industry as a whole.

Q. Mr. Landreth, printed in the House Journal of Tuesday, July 21, 1931, is a statement of the receipts and disbursements of the Texas Central Proration Committee of the Texas Division of the Mid-Continent Oil & Gas Association. Have you seen that statement?

A. Yes, sir.

Q. I will ask you whether or not you are familiar with it?

A. I am very familiar with it.

Q. And could tell the committee if that list is an accurate and full one, and states all contributors to that account?

A. That is accurate and full, Senator, up to those dates.

The Chairman: What page is that on?

A. Page 94.

The Chairman: Of the House Journal?

A. Page 94 of the House Journal.

Senator Purl: I didn't understand the question.

Q. I asked him if that statement on page 94 of the House Journal was a full and accurate accounting

of all the contributions to the account. Now, have there been additional contributions since that account was published?

A. If there has been, I have not been advised.

Q. You say that the Gulf Production Company is illegitimate?

A. Well, I believe I would modify that, Senator. I think a lot of the Gulf Production Company. It is a very good company, but they, as I stated before, they have just one policy.

Q. Yes.

A. They say we will buy our oil, and you can look for your own market, and I think that is primarily where the common purchaser act started—that company and one or two other companies not buying their oil ratably.

Q. Why did you solicit a contribution from the Gulf Production Company through Mr. Nazro to this fund of the Central Proration Committee?

A. Mr. Nazro and I are very good friends, and I have been working with Mr. Nazro in all of those fields for years. We have agreed and disagreed on our policies. Mr. Nazro's company has paid into all of the proration pools the expenses of those individual pools, and I being the Assistant Treasurer of these funds have solicited the different firms, companies, and individuals, and have repeatedly worked with Mr. Nazro to get his proportion of these expenses.

Q. Now, let me ask you a question or two about conservation. First of all, I will put this question hypothetically. Does conservation to your mind, or does it not to your mind, mean the securing and the reduction to beneficial uses of the greatest possible amount of the oil and gas that is under the soil in Texas?

A. It does.

Q. That is what conservation means to your mind?

A. Yes, sir.

Q. If it should be found from all the testimony in the record, and all of the thought that is being given to this subject at this time, that we should pass a law that would bring about that thing, and bring to the present and future generations of

Texas the greatest possible amount of oil and gas that is in the ground, and that law would not profit you as an independent operator one penny in your lifetime, would you favor the law?

A. Yes, sir.

Q. All right. That is all.

The Chairman: Any further questions?

Senator Martin: Back to this report you just now read in the House Journal.

The Chairman: Let's have a little better order.

Questions by Senator Martin.

Q. Back to House Journal, page 94, that you just read a moment ago. I believe you say that list as shown there on pages 94-95-96, are those companies who contributed to this Central Proration Committee; is that right?

A. Yes; and that also is continued over to page 98.

Q. And you are Treasurer of that?

A. Yes; I am Assistant Treasurer.

Q. You are Assistant Treasurer?

A. Yes, sir.

Q. And Cicero I. Murray is a member of the Central Proration Committee?

A. No, sir; he is not a member of this committee at all.

Q. What?

A. You have that confused with the States' Advisory Committee.

Q. You are also connected with that, are you not?

A. No; that hasn't anything to do with this at all.

Q. I will ask this: Does the Penn Oil Company contribute to the fund to take care of the Advisory Committee?

A. Mr. Penn is Chairman of this committee, and he is a member of the States' Advisory Committee.

Q. And you have something to do with that, don't you?

A. No; the States' Advisory Committee, I haven't a thing to do with that at all. I never attend a meeting of it.

Q. You don't write the checks for Mr. Foran?

A. No; that is the Central Proration Committee.

Q. Central Proration Committee?

A. And I don't write those checks. I have been out with these

companies to solicit contributions to carry on this expense.

Q. Well, have you ever seen a report of the Oil States' Advisory Committee?

A. I have not; no, sir.

Q. Don't you know anything about that?

A. No, sir.

The Chairman: Any further questions?

Questions by Senator Purl.

Q. You stated a while ago on this examination that there were casinghead operators that you know of who are ready and willing to go into East Texas?

A. Yes, sir.

Q. Now, who did you say they were, if you did say that?

A. I said it would be the Phillips Petroleum Company and the Humble Oil & Refining Company, that they would no doubt stand ready to go into East Texas within a very reasonable time after East Texas was placed under an orderly program.

Q. Now, is that just an idea of yours, or have you any definite evidence to back it up with?

A. Senator, my facts are these: I am very familiar with those companies' operations of plants, and that is their policy, that when a field has sufficient gas that is regulated, that they are justified in laying gathering lines over the field, that they are ready to go with the plant.

Q. Did any official in authority tell you that they would?

A. Not directly.

Q. Then of your own knowledge you don't know whether they want to go over there or not, Mr. Landreth?

A. Mr. Purl, I have built casinghead plants myself and I have seen them built in every field that has large volumes of gas, and it is very reasonable to assume that a leader like the Phillips Petroleum Company, if they are justified in securing sufficient gas over a period—and the Humble Company—would gladly go in there.

Q. But the fact of it is—I am not quarreling with you—that is just your idea and you don't know it definitely—you have not discussed it with them?

A. I have not discussed it with them, but that has been their policy in all oil fields.

Senator Moore: Senator Purl, there is a long distance call for Mr. Landreth.

Senator Purl: I will be glad to suspend.

The Chairman: If it is agreeable, we will recess for about three minutes—stand at ease, rather.

Recess.

The Chairman: Mr. Landreth is back now. The committee will come to order.

Q. Just this final question on this subject: Your idea of the Humble Company coming in there is just an impression and is not based on any facts from having talked to them—it is based on what they have done in the past?

A. It is based on what they have done in the past and the type of gas that is in that field, that I venture to say that just as soon as the field is regulated to where the Humble can depend upon a steady volume of gas that you will find they will go in there with casinghead gas plants.

Q. All right. Now, leaving that part of it, you say a bill was prepared thirty days before the Legislature met down here—a proposed bill?

A. Yes, sir, Senator.

Q. Is that the bill that Mr. Rhodes Baker as chairman wrote?

A. That is right.

Q. Was there another Baker in Houston drawn into that conference?

A. No, sir, not into this conference.

Q. Just Mr. Rhodes Baker of Dallas?

A. Just Mr. Rhodes Baker of Dallas.

Q. Who else helped to prepare that bill?

A. Mr. Rhodes Baker was the chairman of our legal committee and on that committee with Mr. Baker was Mr. Charles H. Brachfield and E. T. Moore and Malcolm Crim of East Texas.

Q. Now, Mr. Baker represents the California Company, doesn't he?

A. He represents several oil companies and Mr. E. T. Moore of the Simms Oil Company was responsible for Mr. Rhodes Baker, and he is supposed to be one of the best attorneys in Dallas, and Mr. Moore has had a lot of experience with him and recommended him very highly and we find him to be a very fine gentleman and an efficient lawyer.

Q. I agree with you that he is a fine man and an eminent lawyer, but I say he represents the California Company.

A. I don't know that he does. I know that I have heard he represents several oil companies in Dallas, but Mr. Moore said he represented the Simms Oil Company and that was our basis for the recommendation.

Q. The California Company is a part of the Standard Oil Company, isn't it?

A. Yes, sir.

Q. Now, you say Mr. Brachfield was on that committee?

A. He was the committee, although he never served.

Q. He didn't function?

A. No. He represents the Gulf Company.

Q. He represents the Gulf Company?

A. Yes, sir.

Q. All right. Now you had one of these illegitimate company's lawyers on that committee?

A. Now, Mr. Purl, you know I kind of prefaced my remarks about that illegitimate business. About the Gulf Company, they are a real company, but they have never done anything for independents.

Q. Do you call them outlaws?

A. I call them that; they are looking out for themselves; they are for the Gulf, and as you know they stated they produced their own oil. Some fifty thousand barrels is being imported.

Q. You didn't hesitate to call some others illegitimate.

A. Who?

Q. The Gulf.

A. I think the Gulf is a legitimate operator.

Q. Well, now what is the difference between the Gulf and those you call illegitimate?

A. I think I explained that a while ago.

Q. All right. I will not insist on your going over it again. Now, then this bill that Mr. Rhodes Baker prepared or helped to prepare, that bill was brought down to the Legislature and distributed in circular form around the capitol and elsewhere?

A. Yes, sir.

Q. It was brought down here about the time the Legislature met?

A. That is right.

Q. Now, then when you were in-

terested in getting Legislators to wire to Governor Sterling to call the session you did not send out that copy of the proposed bill to the members?

A. That is right.

Q. You kept it?

A. We didn't have it completed at that time.

Q. Well, it was prepared thirty days before wasn't it?

A. The bill, Senator, was in a rough form and was worked over from meeting to meeting and in reality was not finished until the committee met in Austin the day before the Legislature went into session and the bill was printed here and the meeting was held on the roof of the Stephen F. Austin Hotel; everybody was invited to discuss the bill and we had it mimeographed and passed out that morning as a suggestion of the Texas Oil Emergency Committee.

Q. Now, as a matter of fact, the bill was never completed?

A. Not at that time.

Q. It has never been completed?

A. Well, it is still—(answer interrupted).

Q. Was there ever a caption for it?

A. No, there has not been that I know of.

Q. It lacked that much of being completed?

A. That is right.

Q. No member of the Senate introduced that measure?

A. No, sir.

Q. That bill took into consideration market demand and economic waste, did it not?

A. It took into consideration market demand.

Q. Now, are you familiar with the bill?

A. Fairly familiar with it.

Q. Are you familiar with the Woodward Bill?

A. Yes, sir; I have read that bill.

Q. Now, with the exception of the market demand, which is in the Woodward Bill, and the economic waste, which was in the Baker Bill—I will call it that,—and the Woodward Bill—what was the difference between those bills?

A. Well, in the first place, as I understand Senator Woodward's bill provides for an appointive commis-

sion and our bill did not, and there were several changes made there.

Q. Did your bill leave it with the Railroad Commission?

A. Yes, sir. There were several changes made there, Senator. I think I have told you I am not a lawyer, but I understand that the important changes were something about injunction suits and about bond and changed back and forth, and every place it referred to market demand it was taken out.

Q. Yes, sir.

A. And some other changes there that cover quite a few over our bill.

Q. Is it your opinion that if we passed the Woodward bill that is now before the committee with the market demand and economic waste taken from it that the Legislature will have gone a long ways towards relieving the situation?

A. Well, I feel this, that it is a very good bill; it will give us a bit of relief, but I personally would like to see the bill passed with our market demand clause in it.

Q. Would you be satisfied without it?

A. Well, I have to be if we can't get it.

Q. Now, I want to follow it up with this question: If the Legislature don't give it, so far as you are concerned, do you think there is any need of passing any measure?

A. Yes, sir, I do. I think it is very imperative that we strengthen our present situation, Senator, regardless of what you do. Try and relieve this situation that is confronting the oil industry and the people of Texas.

Q. Well, now, if we pass the Woodward Bill without those clauses that you have just mentioned, where will we strengthen the present law?

A. You will strengthen it in many places.

Q. In court procedure?

A. Court procedure and you will enforce the common purchasers act, the ratable taking laws, and it will be a wonderful improvement over what we have now.

Q. Will that have a tendency to raise the price of oil, or better conserve the natural resources?

A. It will have both. It will stabilize the oil industry, and that is muchly needed.

Q. Before the Legislature met, when you were active in communi-

cating with Senators,—and I assume you were also bringing the acuteness of the matter to the Governor, were you not, Mr. Landreth?

A. Yes, sir.

Q. We know that telegrams were sent to members,—in a proper way,—I am not criticising that. What sort of delegation waited upon the Governor, if any, in influencing him to come down and call a session?

A. On one or two occasions we saw the Governor and discussed the oil situation with him, because Governor Sterling is a man that knows the oil business and we felt that we could discuss it with him better than anybody we know of and he could get out to the Legislators the real imperative need that was confronting all of us, and for that reason we discussed the situation with him from time to time.

Q. Did the delegation come to Austin?

A. Yes.

Q. Will you tell us who they were?

A. At one time I think we had fifty-five that went into his office.

Q. Fifty-five?

A. Fifty-five operators and royalty holders of East Texas.

Q. Now, then, when you discussed it with the Governor, at that time or any other time, was market demand in the discussion?

A. That was never discussed with him.

Q. You didn't discuss it with him before he called the Special Session?

A. No, sir, the only time that was ever discussed with him that I know of was, I think, the day before you went into session here. The Governor politely told us that he had seen a copy of our bill and had stricken out the market demand. That he was positive that he wouldn't, or couldn't vouch for a bill like that and he didn't think we could get that through, and we tried to show him the importance of it.

Q. At the time you talked with the Governor, did you have in mind you wanted legislation on market demand and economic waste?

A. We were preparing the bill and didn't discuss the details at all.

Q. Did you have in mind at that time that you wanted a bill that has market demand and economic waste? How long had you had in

mind that you wanted that clause?

A. This bill—if I remember, the Housley Bill had market demand in it.

Q. Did you assume the Governor was for it?

A. We never. Frankly, I don't believe that point was ever discussed with the Governor. Up to the day I spoke to you about that he advised us that every place it was referred to he felt that it would have to come out of the bill.

Q. Are you familiar with the Housley Bill?

A. Yes.

Q. Did you discuss with him about that bill?

A. I am sure we did not; we did not discuss it with him, about it.

Q. The Housley bill has market demand in it?

A. Yes.

Q. Were you led to believe, or was it your idea that the Governor was for the Housley Bill?

A. We came down here,—we didn't discuss it with the Governor or anybody. We came down here and placed that before the House. The East Texas situation went from bad to worse, and the situation got so desperate we felt if we came down here we could get a bill over the last few days.

Q. At the regular session?

A. Yes.

Q. The Railroad Commission's office signed some of the circulars informing the Legislature of the seriousness of the situation?

A. Well, we issued a circular giving a statement that the Railroad Commission had made.

Q. You issued a circular calling our attention to the seriousness of the situation, by their authority?

A. It wasn't sent by their authority. We put it out in that form.

Q. Who was the letter to?

A. I think that was addressed to the Governor, wasn't it?

Q. Now then, where did you get your copy?

A. I beg pardon?

Q. Where did you get your copy?

A. Mr. Terrell gave me a copy when it was released to the press.

Q. Now then, didn't Governor Sterling send up a message calling our attention to that seriousness a few minutes, or hours before the Legislature adjourned,—maybe it was a few days?

A. I don't know.

Q. About the time the Housley bill was introduced?

A. I don't recall that he did.

Q. To sum it all up then, the bill was prepared thirty days before the Legislature met, although no member was furnished a copy showing market demand in it, and you discussed the bill with the Governor but made no mention to the Governor about the market demand, did you?

A. The only time we discussed the bill with the Governor at all, Senator, was the day before your Senate went into regular session here,—that is, Special Session. We just discussed with the Governor from time to time the oil situation, and as I say, that particular day we discussed with him about market demand, and we made this explanation to him, that the last three years,—the last three years particularly, since these fields have been under proration, that you had to have the market demand clause in there to prorate by, and as I stated, the explanation the Governor made,—he said he didn't see it that way when he was producing oil, and as far as he was concerned he didn't think he could see where we could get by with that clause in our bill.

Q. And he wasn't for it?

A. He wasn't for it, and he struck it out.

Q. I see. Could you tell us the name of any president of any of the large companies that might have been in that conference with the Governor, if there were any?

A. There was no president of any major company.

Q. Were there representatives from the Humble Oil & Refining Company there?

A. No.

Q. Gulf?

A. No.

Q. Pure?

A. No, sir, none of the major companies have a representative on this Texas Oil Emergency Committee.

Q. That is all.

Senator Parrish: I would like to ask him a few questions.

The Chairman: Senator Parrish.

Questions by Senator Parrish.

Q. Mr. Landreth, this is ignorance on my part. Should you try to determine what the market is, or will be tomorrow, how would you arrive at that?

A. I would arrive at it on this basis. You know what the consumption of oil is in the United States and each State has its proportion of that market. In other words, right now the economic committee of the Federal Board has made an estimate that the market demand for this year is approximately two million, five hundred thousand barrels of oil per day—

Q. In the United States?

A. Yes, of which Texas is entitled to eight hundred and eighty thousand barrels daily of that demand.

Q. On that same theory you do not take into account the possibility of exports?

A. Yes, the exports and imports. Yes, I think it is. In other words, there has been more or less of a fixed amount that has been coming into the United States, and as you probably know, Senator, there has been more oil exported than imported, and they take these into consideration.

Q. Another question that I have not been able to get into my mind why it should be, and that is the question of posted price. All of the companies post a certain price and that is the same today?

A. Yes.

Q. You are on the market with a major company—

A. We are selling,—we have been selling in West Texas from our Ector County pool, to the Burford Oil & Refining Company, which is a small independent refinery. We have had a fifteen hundred barrel a day contract with them over a year and they renewed it a couple of days ago—

Q. You had a contract for a year?

A. Yes, sir, for fifteen hundred barrels daily.

Q. From your knowledge, does any of the producers receive for oil from any source more than the posted price of the major companies?

A. Senator, there used to be in Wichita Falls, and in certain pools in Oklahoma,—they used to receive a bonus from ten to twenty-five cents.

Q. From the major companies?

A. No,—the producer. I thought that was what you asked me.

Q. That is what I mean.

A. Yes, sir, the independent producers have in the past received from ten to twenty-five cents premium over the posted price of the major companies. For instance, our price in the Ector County pool today from the Burford Oil and Refining Company is

based on the Humble posted price. For instance, we sell oil to the Shell, and our contract is based on the Humble posted price. In other words, their price has been the leader in West Texas, and most all of our prices in West Texas are based on the Humble posted price.

Q. You don't mean these companies have a posted price and then to certain individuals pay a bonus?

A. No, sir. I mean an independent refinery, or some individual would pay somebody a premium of ten cents or twenty-five cents over their price.

Q. Here is the thing I haven't been able to get in my head, and it is the thickness of it I am sure. For instance in my town if all of the cotton buyers would say "this is the price we will pay today"—every one the same price, the farmer it seems to me like would be up against it. I don't get the distinction.

A. I believe I can explain it.

Q. I wish you could.

A. For instance, the Humble Company today will put out a posted price. They will say "effective at seven a. m. our price will be fifty cents per barrel," say. Now then, during the afternoon one of the other companies might meet that price, or tomorrow morning. The Shell, who is buying oil from us, or the Prairie, will make a posting that they have met the Humble Oil & Refining Company's posted price as of seven a. m. that same morning. In other words, they go back. They might three or four days afterwards decide on that price, but make it effective as of seven a. m. on the same day the Humble made it because they are competitive with each other. They are buying oil that way to give me the same price I am getting—they want to give me the same price the Humble is paying me in some other field.

Q. In other words, if they pay you a lesser price than the Humble posted price, they would then give you the benefits of the Humble posted price?

A. Yes. Here is the idea. If the Humble raises the price from forty to fifty cents, giving you a ten cent raise, now the Prairie as a rule, maybe two days after will go back and say effective at 7 a. m., on the morning the Humble posted their price we will pay the same price. It isn't yet put in effect at seven o'clock

that day, but two days after they will go back and pay the price as of that day.

Senator Parrish: That is all.

The Chairman: Any other questions?

Senator Pollard: Yes sir.

Questions by Senator Pollard:

Q. You stated that you adjust the price according to the Humble price, did you say?

A. Yes, sir. I say that the price in West Texas as a rule is based on Humble prices, because they are the largest buyers in that district.

Q. Isn't that true in East Texas too?

A. Well, now, I believe several companies are buying just as much as the Humble, but I believe that the Humble being the largest purchaser in the State of Texas a lot of the division orders or contracts are made on the basis of the Humble, Texas, or Gulf posted prices.

Q. You stated that there might be some independent that would pay ten or fifteen cents a barrel premium in order to get oil?

A. They have done it in the past.

Q. Would you claim those fellows are illegitimate?

A. No, sir.

Q. Now, in regard to the Humble price cut. That reminds me that about six weeks ago the Humble suddenly cut the price one day in East Texas from sixty-seven to thirty-seven cents. I think on the same day the Governor suggested that we ought to have the Legislature called and about that time you folks formed your Emergency Oil Committee. All that happened about the same time, didn't it?

A. Senator Pollard, that Texas Oil Emergency Committee was formed on the 8th day of June, to be exact.

Q. This cut was made about the last of May, or the first of June.

A. We have had two or three cuts.

Q. I mean that big cut. The one when Mr. Roeser said it was a good thing to cut East Texas because they wouldn't prorate.

A. No, sir, he didn't say that. He said it was inevitable, they had to cut it.

Q. It all happened about the same time?

A. There has been about five cuts. There are so many things happening in East Texas the dates are hard to check.

Q. Yes, sir, I find that myself, too. I am just wondering what significance, if any, the general price cut had just prior to the meeting of the Legislature. Was that inevitable or just trying to let us know what could happen?

A. It was inevitable for this reason, there was four hundred thousand barrels of oil going on the market at an average price of fifteen to twenty-two cents.

Q. Do you think the price condition arose out of the fact that certain major companies were taking more than their share of the oil out of the East Texas field and refusing to connect one hundred and eighty wells?

A. No, sir, I think that was caused by certain independent companies offering their oil at any price they could get for it.

Q. But it is a fact that they had about a hundred and twenty wells they would not connect to three weeks ago in East Texas?

A. I am sure there were that many wells that were without connection, but most of them were willing to take any price to get rid of some of that oil.

Q. Do you know Jack Roberts?

A. Yes, sir, very well.

Q. Is it not a fact, that the Humble Oil and Refining Company prior to this ratable taking order was not taking ratably in East Texas?

A. I am sure they were not.

Q. Is it not a fact, that Mr. Jack Roberts had a well in East Texas, with a well within a hundred and fifty feet of it on each side, that the Humble Oil and Refining Company built two wells and took about five thousand barrels a day out of those wells and would not connect to Mr. Roberts' wells for three months?

A. The Humble Oil and Refining Company said they were willing to take ratably from those wells, and I think that has been their attitude all the time. I am not plugging for the Humble Oil Company, I do not wish to be understood that way, but here is what they have done since they tried to get ratable takings in Texas, they have gone out in every pool and said we will buy your oil ratably, we have enough production

of our own to supply our entire requirement but we want to work out a situation in the State of Texas to regulate the production of the fields ratably with everybody.

Q. They fix the price too, don't they?

A. No, they don't fix the price.

Q. I thought you said they lead out on the prices?

A. I say this, they are the largest buyer and practically all of the prices are based on their posted price in West Texas.

Q. It is getting to be that way in East Texas?

A. I don't know, I think it will eventually, because I believe the Humble Oil and Refining Company is the largest purchaser and seller of crude oil in Texas and I believe their prices will be based on the production.

Q. I am not after the Humble Oil and Refining Company or anybody else for that matter, I just want to get the facts out.

A. The reason I bring that out, I am not any more for the Humble than The Texas Company or the Shell, but I do say this, I think the independents must have major purchasers, and I would like to see a law that would cause every major company to go out and take oil ratably and be just as fair as the Humble has been.

Q. Now, when you decided on causing the Legislature to meet, you employed Mr. Kittrell as publicity man?

A. That is right.

Q. And in carrying on your publicity campaign it was his duty to call on the members of the Legislature and talk to them about the necessity of an extra session?

A. In other words, what we tried to do was to convey to the Legislature of the State of Texas the deplorable condition of the oil industry in Texas was in, and the terrific waste that was going on throughout the State, and the existing laws we were trying to operate under.

Q. Mr. Todd was your chairman?

A. Yes, sir.

Q. Is he here now?

A. Yes, sir.

Q. He is the man that sent us these telegrams and letters, and finally wired us to find out why we did not wire back?

A. Mr. Todd and our general

committee. — —most of those telegrams were sent from our office, I am the secretary and treasurer of that organization.

Q. His name was signed to the telegram?

A. Yes, sir, he is the chairman and one of the outstanding independents in Texas. He lives in Dallas, and has been with the Simms Oil Company for years and been one of the leading operators in West Texas for several years.

Q. Don't you think that most of the people in Texas are in favor of orderly production, if they can get it the way they want it?

A. No, sir, I think eighty per cent are for orderly production and I think the others, — —if you will notice these red spots on this map, they are the ones that disturb a whole field and make it wasteful, and I do not think that condition should exist.

Q. Isn't it true, that most of the oil taken by any single well in Texas has been taken by the Gulf, Humble, Arkansas Fuel and Gas Company and the Sinclair Oil people, you know that as a matter of common knowledge?

A. No, sir, Mr. Farish gave you figures and facts.

Q. Per well?

A. Per well, and per individual, and it showed that ten per cent of the owners of acreage in East Texas had produced fifty per cent of the oil and had drilled fifty per cent of the wells.

Q. Who is carrying on the most excessive drilling campaign that is going on there today?

A. I think the Sinclair now.

Q. Isn't it true that the Humble Oil Company has procured more drilling permits than any other two concerns?

A. I don't think so.

Q. If the facts given out show that they are in error?

A. If the facts show that I would gladly admit it, but I think the Sinclair has taken the lead to get a lot of cheap oil.

Q. I think they all have.

A. I think there are one or two companies that are a little better than anybody else.

Q. Isn't it a fact, that Mr. McMahon and two or three oil brokers have been over there buying oil in their own name and shipping it to

Pennsylvania or Beaumont, that they take oil from any wells that they can get a connection with and who will agree to take the oil if they can get five or ten thousand barrels of oil a day, and take that and deliver it to some major oil company that was not violating proration, hasn't that been happening?

A. I will answer that this way; those brokers will buy and sell oil to anybody they can sell to and they will take oil from anybody where they can talk him into selling it.

Q. Isn't it a fact, that although the major pipe line companies do not take into their gathering lines oil in violation of proration, but they will take oil from some little independent pipe line, gathering it without asking where it came from?

A. No, sir, I don't think so. It was done, but I think they have discontinued that, and they are trying to stabilize that situation.

Q. Hasn't that been discontinued within the last two weeks?

A. No, sir, it was about six weeks ago, one of your large producers that have given us more trouble than anybody in the State of Texas in violating orders.

Q. You say my producers, you mean that?

A. No, I don't say your producers, I don't mean that you produce.

Q. You mean East Texas?

A. No, I mean Texas. They went into a contract as late as last April for twenty cents a barrel for oil and oil was then selling for fifty-seven and sixty cents. How would you account for a buyer of that type, that would sell his oil, he has his own refineries, why would he make a contract for oil at twenty cents?

Q. You mean he was buying it and selling it?

A. He was selling it.

Q. I would have to know a little about the facts, if he was broke and needed the money and that was the only way he could get it, if he got one of these advanced payments I could understand?

A. No, sir, this man is not broke, he has had the good fortune to be protected and has been producing many thousands of barrels of oil, more than he should have under the proration orders.

Q. How do you mean he was protected?

A. By an injunction suit.

Q. That is the only way you can get protection in this oil business?

A. Well, the type I referred to a while ago, is classed in those operators.

Q. The man that runs around the gates?

A. No, I mean the type that has to revert to injunction.

Q. He is an illegitimate?

A. Absolutely.

Q. How about a man who sets up an offset to him and a big company draws out ten thousand barrels from one well? With a letter from the Railroad Commission? That man is legitimate.

A. I don't think that should be allowed, but he has to have some production. I think we should have a law to protect the balance of the fields from that.

Q. If you were trying to conserve the field wouldn't you have a law that would permit a man to recover offset damages?

A. I think that is a good law, I think you have something like that now.

Q. Why does the Railroad Commission grant letters of authority to other people who violate proration at the same time they are suing or being sued by some little independent?

A. As I said, I don't think that policy should be continued.

Q. I don't think it should have ever started.

A. I fully agree with you there, but I feel now that it is the proper time to correct that situation because it is starting to demoralize a great oil field in East Texas, and if it is not stopped immediately few East Texans are going to suffer from it a month from now.

The Chair: Senator Martin.

Questions by Senator Martin.

Q. Mr. Landreth, in order that I may understand where we are, we have mentioned the Texas Oil Emergency Committee?

A. Yes, sir.

Q. Then you also have mentioned the Central Proration Committee?

A. Yes, sir.

Q. Then you have mentioned the Oil States Advisory Committee?

A. You mentioned that.

Q. You know there is such a committee?

A. Yes, sir.

Q. Do you know of any other committees?

A. Well, there are a lot of different organizations in the oil business.

Q. And the members of all three of these committees are being paid by the oil companies?

A. I did not get that question.

Q. The members of all of these committees are being paid by the oil companies, is that right?

A. I really do not understand your question.

Q. The people who are on these various committees, the Oil States Advisory Committee, Central Proration Committee, Texas Oil Emergency Committee, The Publicity Committee and every other committee that has been mentioned here in any manner, are being paid by the oil companies and the refineries?

A. No, sir, there is nobody that I know of that is being paid by the oil companies outside of the one man I refer to, Mr. Kittrell, our publicity man.

Q. Who pays Mr. Foran?

A. Mr. Foran is a technical advisor of the Central Proration Committee.

Q. He is not connected with the Oil States Advisory Committee?

A. That is right.

Q. He has no connection whatever with them?

A. No, sir, and no connection with the Texas Oil Emergency Committee.

Q. I want to know what the duties of the Central Proration Committee are?

A. The duties of that Committee were in the inception to work through the State of Texas, employ a technical officer and get data on the fields themselves and furnish that information to the Railroad Commission.

Q. The Railroad Commission did not have anyone doing that for them?

A. No, sir, that is right.

Q. Nobody at all?

A. No, sir.

Q. They haven't anybody at this time to give them that information?

A. That is right.

Q. Is that Committee still functioning?

A. Yes, sir, that Committee is still functioning.

Q. Your Texas Oil Emergency Committee, what are its duties?

A. That organization, Senator Martin, was formed to prepare a bill and bring it before the Legislature of Texas, to show the condition of the oil industry and try to get a bill passed that would correct it.

Q. That then is a part of what you call your advertising committee?

A. Yes, sir, in other words, that is what Mr. Kittrell has been working on.

Q. To seek out and hunt out all of the facts, and supposed facts that might indicate ways so that it could be favorably presented to the Legislature, and the members of the Legislature?

A. That Committee, as I said, was formed to prepare, — — — —

Q. Well, I asked you a question, you could answer that yes or no.

A. What was the question?

Q. I will ask the reporter to read the question. (The reporter read the last preceding question.)

A. Yes, sir.

Q. Then you have a publicity man whose duties it is to get out and find these facts and get it in such shape as to make them presentable to the members of the Legislature in order that it might bring about legislation?

A. Through the committee, and legislation, yes.

Q. The Oil States Advisory Committee, what are its duties and function?

A. I don't know much about the Oil States Advisory Committee. I know that Cicero Murray and Robert Penn, and several members over the different states have prepared what they call a State Compact, and I think they are going to meet in Colorado Springs, on the 14th of August.

Q. Did you meet with them in Fort Worth on March the 1st?

A. I sat in on that meeting.

Q. Did you sit in on the meeting of March the 9th, 1931, at Texarkana?

A. No, sir.

Q. You did not attend that meeting?

A. No, sir.

Q. You knew there was such a meeting?

A. I heard about it.

Q. Just read about it?

A. Yes, sir.

Q. You have never been furnished a copy of the resolutions adopted there at that time by the Oil States Advisory Committee?

A. No, sir.

Q. Never saw that?

A. The only thing I saw, we came down to Austin before the Railroad Commission just about the time the States Advisory Committee met with your Texas Committee on forming this — —

Q. Mr. Landreth, there would not be any need of stating what you saw — did you or not see their recommendations as made?

A. That was passed out at this meeting here in Austin, during the meeting they held with your Texas Legislators.

Q. Would you recognize one of those resolutions if you saw it?

A. I have a copy of the bill.

Q. You don't have a complete copy of the resolutions adopted at Texarkana?

A. No, sir.

Q. That is all.

The Chairman: Any further questions? I want to thank you, Mr. Landreth, for your patience in answering the questions of the Committee, and for your testimony.

(Witness excused.)

Senator Martin: Will Mr. Penn be available as a witness? I have one question I would like to propound to him.

Senator Pollard: He said he would be.

Senator Martin: The only purpose I have in calling him: I want to get in the record the recommendations made by the Oil States Advisory Committee. I have a copy of it here, and I want him to identify it.

Senator Woodward: Put it in; we will waive the identification.

Senator Martin: Well, if it may be agreed that this is the report, and that these resolutions were drawn up at Texarkana — —

Senator Woodward: It speaks for itself. Put it in.

Senator Poage: I will admit the authenticity of the record, if you want to put it in there.

Senator Martin: Then, I offer Mr. Chairman, the Resolutions

adopted by the Oil States Advisory Committee, adopted at Texarkana, on March 9, 1931, which is signed by Cicero I. Murray, Chairman, Oklahoma City, Oklahoma; W. H. Cooley, Bakerfield, California; Mark D. Mitchell, Independence, Kansas; Carl M. Cox, Cheyenne, Wyoming; W. Scott Heywood, Jennings, Louisiana; T. H. Barton, El Dorado, Arkansas; Robt. R. Penn.

At the same time, while I have the floor here, may I offer in evidence the record of the Railroad Commission's office, Oil Division, of Well No. 6, on the James McFadden Survey, in Liberty County, Texas. I will have photostat copies made of that for the record, and will have the reporter identify it now.

Thereupon the reporter identified the documents referred to in the last preceding paragraph, same to be put into the record as photostats by Senator Martin.

Senator Woodward: I move that the committee recess until nine o'clock tomorrow morning.

Thereupon the motion to recess until 9:00 o'clock, a. m., July 30, 1931, was put and carried, and the Committee on State Affairs thereupon recessed at 6:30 o'clock p. m., July 29, 1931, until 9:00 o'clock a. m., Thursday, July 30, 1931.

Introduced as part of the record by Senator Martin.

Whereas, at a conference called by Governor William H. Murray of Oklahoma and participated in by Governor R. S. Sterling of Texas and representatives of the Governor of New Mexico and Kansas, held at Fort Worth, Texas, February 28 and March 1, 1931, an agreement was entered into creating an Oil States Advisory Committee to study the present distressed condition of the petroleum industry and to make recommendations for uniform legislation looking to the relief of said industry and the conservation of oil and gas, and also providing for invitations to be issued to the Governors of other oil producing states to appoint representatives on said committee;

And whereas, the first session of this committee is being held this March 9, 1931, at Texarkana, Texas,

with representatives attending from the states of Oklahoma, Texas, California, Arkansas, Louisiana, Kansas, and Wyoming, at which meeting there has been a full discussion of the entire oil situation;

Now, therefore, said committee hereby adopts the following resolution:

Whereas, the oil industry in the United States and over the entire world is suffering from a general condition of over-production and slack demand, resulting in depressed prices for crude oil and its products and great distress among all engaged in the industry, including particularly the producers of crude oil as well as those engaged in the refining and marketing business, as well as unemployment and threatened waste of crude oil reserves by the forced abandonment of approximately 300,000 small wells in the oil producing areas of the United States alone, forever precluding the recovery of many millions of barrels of oil and thereby wasting a great natural resource;

And whereas this condition is the result of extreme and uncontrolled competition within the oil industry, resulting in the over-drilling of many areas and a mad race for production on every hand which has built up present potential production of oil far in excess of the ability of the market to absorb same at prices profitable to the producers of such crude oil; such conditions calling for steps by the various legal authorities of the states and of the United States which will permit the oil industry to put its house in order and control its production to fit the market demand;

And whereas if present conditions continue unchecked and unabated, they will result not only in the abandonment of hundreds of thousands of small oil wells in the elimination of virtually, if not entirely, the army of small or independent oil producers in this country, with the survival of only a few of the great major companies, thereby resulting in a condition of monopolistic control of the entire industry, rather than in a desired state of reasonable competition, all of which must be avoided by such control and regulation of the business of producing and handling crude oil and its prod-

ucts as will result in continuing in the business independent and major producers and handlers alike;

And whereas, within the last few years, systems of proration of oil production have grown up within the states of Texas, Oklahoma, Kansas, New Mexico and California, in the effort to hold production of petroleum within the demand, but said proration efforts have failed to result in fair prices for crude oil, said prices having fallen steadily within the last year to such point that a great majority of the oil operators of the United States are now faced with ruin and financial extinction;

And whereas, concurrently with the development of the proration system, there have been vast increases, within the last five years, in the imports of crude oil and gasoline into the United States, thereby nullifying the curtailment efforts that have been put forth, depressing the market and adding to the distress of domestic producers;

Now, therefore, be it resolved by said Oil States Advisory Committee that it hereby recommends the following steps to the Governors of the various oil producing states and to the Legislature thereof:

First: That this committee be continued in existence for the purpose of correlating the activities of the various conservation bodies of the oil producing states, in an advisory capacity, and also to make recommendations as to the amounts of oil which should be produced within the United States and as to the prices which should obtain therefor, so as to assure to all producers a fair and reasonable return on their necessary investments in handling their business of mining for and producing oil; and also to hold conferences and agree with the major purchasers of crude oil as to quantities of production wanted, and prices to be paid therefor, with due consideration to the various grades of oil in the various fields and the geographical locations and conditions of gathering, transporting and marketing such crude oils; and to handle all other matters treated herein.

Second: That said committee also be empowered to confer with and treat with the major importers of crude oil as imports of crude oil and petroleum products, limiting the

same to reasonable amounts with due regard to proration measures in force and to the situation of demand and supply within the United States, so that such imports may not result in the pulling down or destroying of the crude oil price structure in the United States;

Third: That said committee further shall discuss, confer and agree with the various holders of crude oil in storage within the United States as to fair and reasonable schedules or withdrawals from storage of such crude oil, so that such withdrawals may be accomplished in a rational manner without interference with the market for fair amounts of crude oil currently being produced;

Fourth: That in all such negotiations and in the dealings of the various state and National authorities with the oil business it be immediately and widely recognized that a fair price for crude oil is essential to its conservation, so as to prevent wastes of oil from diverting it to uses below its intrinsic value, to prevent the too rapid exhaustion of underground supplies of crude oil and of the gas energy which is necessary to bring it into the wells and to the surface, to prevent the abandonment of countless wells which otherwise would produce large quantities of crude oil that could never be recovered if these wells should be abandoned;

Fifth: That said committee be empowered to proceed with proper negotiations with the President of the United States, the Secretary of the Interior, the Secretary of Commerce, the Federal Trade Commission, the Federal Oil Conservation Board, the Department of Justice, and any or all other agencies concerned therewith to secure a recognition of the fact that it is necessary not only to conserve crude oil but to procure a fair price therefor, in order to prevent abandonment of wells, physical and economic waste and other conditions resulting from the present distress situation; in other words, that intelligent and fair control of the production of such a natural resource as oil and gas is necessary not only to the producers thereof, but to the public as well, by preventing the creation and growth of monopoly, with the resultant dangers of high and unfair prices for

petroleum products in the not far distant future;

Sixth: That pending the working out of such improvements and betterments as are contemplated in this resolution, all of the oil producing states continue in force the present systems of oil proration, without any abatements or lessening of restrictions, maintaining the principle of preventing waste by not allowing the production of crude oil to exceed the market demands therefor;

Seventh: That each of the major oil producing states, Texas, Oklahoma, Kansas, California and New Mexico, immediately take steps through their Legislatures to create oil and gas conservation commissions, or other proper authorities, to be appointed by the Governors of those states, for as long terms as possible, for the sole business of enforcing the laws of the various states as to conservation of oil and gas, adopting and enforcing rules for the reasonable carrying out of such laws by said commissions; thereby removing from undue political influence the activities of such commissions and eliminating from the oil and gas conservation programs of the various states the dangers of considerations of vote-getting;

Eighth: That all of the oil producing states shall as rapidly as possible enact uniform laws for the conservation of these resources, similar to the laws now in force in Texas and Oklahoma, which laws are generally regarded as sufficient to handle the situation, provided systems of administration are provided which will insure full, fair and fearless enforcement of the aforesaid laws; by this it is not meant that all of the oil states necessarily must be immediately subjected to proration, but they should have their legal systems provided for in case they should have flush fields brought in within their borders of major proportions;

Ninth: That the recommendations of the Oil States Advisory Committee, as hereinabove provided for, shall so far as possible be given due consideration by the various states conservation agencies, said committee serving to contact these agencies for the purpose of providing fair allotments of production allowances, as between the various states, with due regard for the various conditions

affecting production in those states;

Tenth: That when allocations shall have been made to the various states by said Oil States Advisory Committee as hereinabove provided, the conservation authorities of said states, each and severally, shall proceed to allocate and distribute, as between the various fields of said states, the market available for the crude oil produced, with due regard for ratable takings as between all producers in a given field and with due regard for preventing any unfair or unreasonable discrimination between various fields;

Eleventh: That in all of such allocations, as between producers and as between fields, due regard shall be given to the necessities of the so-called marginal or small producers—those wells which are in danger of abandonment if production or price is curtailed too far—striving in all reasonable manners to preserve and continue the life of all such small wells and fields so that they may produce the amounts of oil consistent with preventing waste therein;

Twelfth: That proration be immediately extended by the conservation authorities of Texas to the new East Texas Fields, which are now threatening to destroy the entire crude market, providing for those fields fair and reasonable markets and prices consistent with the production of the rest of the country; and that in all new areas of flush production, in whatever State, proration measures be fairly applied from the beginning of the development of said fields;

Thirteenth: That measures be taken in all of the oil producing States to prevent the over-drilling and wasteful production of oil and gas in those areas of new production which may be developed, holding the amount of drilling to such number of wells as may reasonably seem likely to produce said oil most economically and efficiently; and also to save and preserve the gas energy of said fields; and further to encourage the idea of operators who own tracts of land, too small to support wells individually, entering into partnerships creating blocks of sufficient size that they may reasonably and economically support a well or wells, thereby reducing and preventing both physical and economic wastes

due to too close drilling; and that we further go on record, as favoring wherever possible and feasible, the principle of unit operation as providing the fairest and most economical possible way of producing oil and as not only effecting great savings in operation but far greater recoveries of oil and as well as rates of withdrawal that will prevent flooding the markets with new flush oil supplies that cannot readily be absorbed;

Fourteenth: That in all of the foregoing measures, it be borne in mind that it is necessary not only to prorate and curtail production of oil within the United States but to prorate and curtail the imports of foreign crude oil and petroleum products with due consideration for the preservation of the American markets; and furthermore that to prevent such importations as may hereafter arise from other countries like Russia and Roumania, effective measures should be provided by the Congress of the United States to prevent dumping of oil and oil products on the United States market;

Fifteenth: That if the plan of agreements herein suggested for the immediate and fair curtailment of oil imports shall fail of its purpose, then we recommend that the Legislatures of the various oil States enact legislation which will have the effect of preventing importers from bringing in foreign oil to the hurt and injury of United States producers;

Sixteenth: That this committee fully recognizes that for the benefit of the consuming public fair and reasonable prices to the public must be maintained on gasoline and other petroleum products, and that to this end public recommendations be made from time to time by this committee as to what constitutes fair and reasonable prices for gasoline and other petroleum products with relation to the prevailing prices for crude oil.

Seventeenth: That this committee recommends discouragement of any increase in the gasoline taxes imposed by the various states, which taxes in all cases are paid by the consuming public as part of the price of gasoline at the filling station; and that all of the states, by proper legislation, increase the efficiency of the collection of those taxes as now imposed, so as to prevent evasions by unscrupulous concerns.

Eighteenth: That this committee recommends that the oil industry of the United States, through the means herein suggested and through other means which may become apparent from time to time, set unto itself the goal of so conducting its business as to control and prevent the too rapid and reckless production of oil and to assure fair prices to producers at all times—for in any conservation of oil and gas the factor of price is not less important than that of curtailment; it being the feeling of this committee that if the oil industry will avoid a long period of distress and ruin to many thousands of operators, both large and small, all branches of the industry must cooperate through every means available not only to assure fair prices and reasonable supplies of oil and its products, but to prevent unreasonable and monopolistic prices in the future.

Nineteenth: That this committee urges and requests those purchasing companies which have recently reduced prices of crude oil to restore those prices immediately to February levels, pending the working out by the various States of such measures as are recommended herein, looking to immediate betterment of prices thereafter.

Twentieth: This committee finally recommends, in order to make permanent the foregoing program dealing with the oil industry in general, that the oil producing States here represented and which may hereafter join in this committee, enter into an inter-state compact, the terms of which shall be agreed upon by this committee at some future meeting, such inter-state compact to be only obligatory upon those states giving legislative sanction thereto, and also subject to the consent of the Congress of the United States.

(Signed)

CICERO I. MURRAY,
Chairman, Oklahoma City, Okla.

W. H. COOLEY,
Bakerfield, California.

MARK D. MITCHELL,
Independence, Kansas.

CARL M. COX,
Cheyenne, Wyoming.

W. SCOTT HEYWOOD,
Jennings, Louisiana.

T. H. BARTON,
El Dorado, Arkansas.

ROBT. R. PENN.
Dallas, Texas.

ELEVENTH DAY.

Senate Chamber,
Austin, Texas,

Thursday, July 30, 1931.

The Senate met at 9 o'clock a. m., pursuant to adjournment, and was called to order by President pro Tem. Tom DeBerry.

The roll was called, a quorum being present, the following Senators answering to their name:

Beck.	Parr.
Berkeley.	Parrish.
Cousins.	Patton.
Cunningham.	Poage.
DeBerry.	Pollard.
Gainer.	Purl.
Greer.	Rawlings.
Hardin.	Russek.
Holbrook.	Small.
Hopkins.	Stevenson.
Hornsby.	Thomason.
Loy.	Woodruff.
Martin.	Woodul.
Moore.	Williamson.
Neal.	Woodward.
Oneal.	

Prayer by the chaplain.

Pending the reading of the Journal of yesterday, the same was dispensed with on motion of Senator Woodward.

Petitions and Memorials.

(See Appendix.)

Committee Reports.

(See Appendix.)

Bills and Resolutions.

By Senator Woodward:

S. B. No. 15, A bill to be entitled "An Act amending Title 102 of the Revised Civil Statutes of 1925 relating to oil and gas by adding thereto an additional title numbered 102A, further defining waste and further defining the powers and duties of the Commission in respect to the enforcement of the oil and gas laws as embodied in Title 102 Revised Civil Statutes of 1925 and all amendments thereto, and further providing the procedure before said Commission and in the courts in respect to the conservation of oil and gas and the enforcement of the rules and regulations of the Commission; amending

Article 6032 of the Revised Civil Statutes of 1925 relating to the tax on crude oil for the payment of cost and/or expenses incurred by the Commission in the enforcement of all laws in respect to the conservation of oil and gas, levying a tax of one-fourth of one cent per barrel on all crude petroleum produced in this State for such purpose, and providing for method of collecting same, amending Article 6014 of the Revised Civil Statutes of 1925 as amended by Chapter 113 Acts of the Regular Session of the 41st Legislature of 1929, defining and prohibiting waste of oil and gas, providing for notices and hearings upon orders of the Commission, providing for injunctions and appeals from said orders and penalties for violating same, providing that this act is cumulative of all other acts, and providing if any part of this act shall be held unconstitutional such holding shall not affect the remaining portions, and declaring an emergency."

Read and referred to Committee on State Affairs.

By Senator Woodward.

S. B. No. 16, A bill to be entitled "An Act creating the Conservation Commission of Texas to be composed of three men; providing the qualifications of its members, their terms of office, their method of appointment, and their salaries; transferring from the Railroad Commission of Texas to the Conservation Commission of Texas all jurisdiction, powers, rights and authority heretofore conferred and all duties heretofore imposed upon the Railroad Commission of Texas and its members under Title 102, Revised Civil Statutes of 1925, Chapter 313, Acts of 1929, Forty-first Legislature, Chapter 36, Acts of 1930, Fifth Called Session of the Forty-first Legislature, and all laws of the State of Texas relating to the conservation of oil and gas regulating gas utilities, pipe lines, and common purchasers of oil; providing that orders, rules and regulations of the Railroad Commission of Texas heretofore made shall not be impaired by this Act but shall continue in effect; defining the powers and duties of the Commission; prohibiting the use of any part of the funds received from the tax levied by Article 6032, Revised Civil Statutes of 1925, by